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THE

GENESEE FARMER,

A MONTHLY JOURNAL DEVOTED TO

AGRICULTURE & HORTICULTU

DOMESTIC AND RURAL ECONOMY.

ILLUSTRATED WITH ENGRANINGS OF

FARM BUILDINGS, IMPLEMENTS, DOMESTIC ANIMALS,

FRUITS, FLOWERS, SHRUBS, &c.

EDITED BY

DANIEL LEE AND D. D. T. MOORE.

P. BARRY, CONDUCTOR OF THE HORTICULTURAL DEPARTMENT.

VOLUME X.—1849.

ROCHESTER, N. Y.
D. D. T. MOORE, PUBLISHER AND PROPRIETOR,
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Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—JANUARY, 1849. NO. I.

THE FARMER TO ITS PATRONS AND FRIENDS.

In presenting the first number of our TENTH volume, dressed in a New Year's suit, we extend the congratulations of the season to all who have contributed toward furnishing us with an outfit so elegant and becoming. Gratefully appreciating the favor bestowed upon our labors during the past year, we enter upon the duties of the present with increased means and facilities, and a firm determination to render the GENESEE FARMER sufficiently valuable to MERIT an augmentation of its already unparalleled patronage. We desire to render it USEFUL to all who may make its acquaintance—and to extend its usefulness by increasing the number of its patrons and readers. With this object in view, we have been more liberal in our expenditures than many deem prudent, in order to present a volume eminently worthy of support. The reader can best decide whether we have succeeded, after examining the appearance and contents of this issue, which however is not so complete as we intend to make future numbers of the volume.

Relying upon the generosity of that shrewd and well informed portion of the Rural Population of America who read and think as well as work for themselves, we present the Farmer to its friends at the East and West, North and South—not unmindful of the fact that, whatever merit it may possess, or however worthy the cause it seeks to advance, its mission will be comparatively useless without the approval and influence of those who possess clear heads and energetic spirits. It has heretofore been our good fortune to receive substantial assistance from almost every section of our widely extended country—and may we not bespeak a continuance of the kind offices of our friends, at home and abroad, now that we are using every proper effort to enhance the interest and value of this journal? We respectfully solicit all into whose hands this number may fall,—whether subscribers, casual readers or borrowers,—to lend us their aid in behalf of its objects, either by extending its circulation or furnishing appropriate matter for publication in its pages.

THIS No. of the Farmer is sent to many persons who are not subscribers. May we not confidently ask those who approve of the character and objects of the work, to lend their kind offices toward giving it a general circulation in their respective localities?

OUR COUNTRY—ITS AREA AND RESOURCES.

As a New Year's Salutation to thee, kind Reader, we desire to hold a little pleasant talk touching the present area, resources and prospects of our common Country; and indicate some of the interests of American Farmers, in shaping and controlling the destiny of this young and magnificent Republic.

A wise and good Providence has imposed on the Freeholders of the United States responsibilities and duties, and conferred corresponding blessings and advantages, which stand out in this the latest age of the world, wholly without a parallel in its long history. We can not rightly judge of the future by the past; because Human Progress and ever Expanding Intellect have made discoveries and inventions, infused into Society a thousand new elements and potent influences, the like of which were never before felt or known. New agents and new causes, as subtile as thought, as diffusive as steam and electricity, must work out results alike unknown and incomprehensible, to our defective knowledge of men and things. Blind and ignorant as we are, and incapable of looking far into futurity, yet God has made us not only the parents, but the guardians of all woman-born, who are to succeed us on this planet.

It is a great thought, a happy discovery that a two legged, talking animal has *any duty* to perform.—But having made the discovery, no matter by what means, its solemn requirements will permit no evasion. It is a wonderful and curious fact, that every year's advancement of civilized, christian nations, increases the power of Morality to punish wrong-doers. Witness what is transpiring in the most cultivated nations of Europe. Below all these popular upheavings—this vast intellectual volcano—there is an unseen Providence silently evolving some mighty problem in which the tillers of American soil are destined to perform a most honorable and distinguished part.

Including Texas, New Mexico, California and Oregon, the United States now cover an area of 3,252,574 square miles. Estimated in *acres*, our freehold estate measures, according to the most careful estimates at the General Land Office in Washington, 2,081,647,360. Allow one half for forests and waste lands, and the other moiety will, with skilful tillage, feed and clothe a population two or three times larger than the whole number of human beings now on the globe. What a platform for a republican theatre!

Is it too much to say that the great Husbandman above has planted us here, as christian, moral, reasoning beings, from whose government and good seed a a glorious harvest may be reaped in the coming autumn of this Western Nation? Call it weakness or what you please; such is our faith. Hence our cheerful labor to encourage the wise culture of the farmers, whom Providence has so recently located on American soil. If these come to nought, where is the hope of the world? Heaven has kindled a vestal fire on our hills and mountains. It has appointed, not Roman Virgins, but iron-palmed husbandmen to protect, keep alive and ever glowing, the sacred flame. Farmers! you have great and most responsible public duties to discharge. It has long seemed to us that your sterling good sense and honesty of purpose were too little *felt* in directing aright the affairs of your State and Federal Governments. Your Educational, Agricultural and Economical Interests are not so strictly attended to, nor so faithfully studied and promoted as they ought to be, if you would impart to your whole country the highest attainable prosperity. We advocate no untried utopian schemes. We preach not a disorganizing war of class against class. But, we do urge the importance of thoroughly educating, in the largest and best sense of the term, the whole Mind of the nation. From a lamentable defect in mental culture, more than half the hands employed in rural pursuits in the United States, not only misdirect and lose much hard work; but, they render the soil which is tilled, less and less productive, less and less capable, (without long delay or large expense,) of feeding and clothing a population which is ever adding to the number of hungry stomachs and naked backs, by an abiding law of Nature. This exhausting system of planting and farming, is truly a national calamity. Very few good farmers at the North, have any knowledge of the extent and depopulating influence of this abuse of the bounties of God, in large districts of our country.

If the reader attributes this impoverishment of cultivated lands to a "peculiar institution" in that portion of the Union, where the desolating effects of ignorant husbandry are most conspicuous, he will be mistaken in his opinion. Well-educated, scientific planters find no difficulty in improving their estates with such laborers as till cotton, rice and sugar plantations. Educate properly the Minds that direct rural industry, and all the rich resources of American soils, whether north, south, east or west, will be husbanded and turned to the best possible account for the Union as a whole. This is what we most desire; and we are pained to know that so many politicians, who enjoy an ephemeral reputation as statesmen, enact our laws and control all educational institutions, do not understand and care not to investigate this momentous subject.

Suppose the vast public domain of the United States were wisely managed, and the whole of its nett proceeds sacredly devoted, in all coming time, to the wise development of the great Soul and Heart of the American people? What a mine of moral and intellectual wealth lies unsurveyed, unexplored, in the heads of the toiling millions of this land, where the People rule! What is the value of California gold to a Nation of Freemen, compared with sound morality, cultivated reason, true science in every head, and social contentment in every heart? If Heaven had withheld our present known capacity to improve our race, and denied every sense to enjoy all other pleasures than those we share in common with the meanest brutes, then we should be justified in regarding the *animal* man as everything, and the *spiritual* man as nothing. Let each be estimated at its true value. First, deal justly by American Mind, and its power over the physical elements of nature, to consolidate, enrich and elevate our whole population, whether on the shores of the Pacific or Atlantic — whether on the great Gulf of the South, or the great Lakes of the North—will be all that the most ardent patriot could desire.

Our agricultural, mineral, manufacturing and commercial resources, are altogether beyond computation. The danger is, that we shall prove unworthy of blessings, so numerous and transcendant. Unmerited wealth and undeserved prosperity have ruined millions of individuals, and induced the speedy downfall of many powerful nations. As our form of government makes every voter a minister of state, he should study to inform himself in all matters of public policy. A sovereign that reads little and studies less, might do well in some parts of Africa or Asia, but he is out of his *kingdom* in the United States.

The larger the number of immigrants that flock to our happy shores, from disturbed and bleeding Europe, the more urgent is our duty to watch closely all demagogues, and provide ways and means for the settlement and improvement of all new comers. We confidently expect soon the annual arrival of a million of foreigners to reside permanently, and multiply rapidly in this country. It is indeed a land worth coming to; and not a few of the two hundred and fifty millions in Europe have already found it out. Wake up, young man! — prepare yourself to act well *your* part in this wonderful drama. Tell us what can poor, limping Ignorance do, in a race with Science, with its locomotives, its steam-ships and its telegraph wires? Common people fail to appreciate the value of Science, although not a year or month passes in which it does not double the productive power of human muscles, either in the field or the workshop. Study, then, the uniform and unerring laws of nature; which, if well understood, will add four fold to thy happiness as a rational being, and place thy name among the honored of the land.

LIME, ASHES AND GYPSUM.

Winter is a favorable season, when there is good sleighing to procure such fertilizers as lime, gypsum and ashes from a distance, if it be necessary to go far to find them. As a general thing, when a farmer lives some distance from lime rock and kilns, there is a lack of this mineral in his soil. He does not reside in a large wheat-growing section. Next to good stable manure and the contents of the vaults of privies, ashes, bones, gypsum, common salt and lime are the most valuable food of cultivated plants. Procure and husband these with all reasonable care.

Much as has been written on the subject of saving manure, particularly the liquid excretions of all domestic animals, the matter is still sadly neglected, as well as that of collecting lime, ashes, and other mineral elements of corps. Such neglect is not creditable to those that practice it. At the South, good farmers take great pains to collect forest leaves, as bedding for horses, mules, cattle and hogs. They form a valuable material to absorb urine and add much to the manure heap.

AGRICULTURAL METEOROLOGY

Having discussed in former volumes of this work many subjects, particularly the nature and properties of the organic and inorganic elements of plants, as they exist in soils and the atmosphere, we shall advance a step or two in the volume for 1849; and endeavor to explain more fully than we have hitherto done, several meteorological phenomena, which are of equal importance in the practice and the study of Rural Economy.

Rain and snow-water, dews, and the hygrometric condition of the air, have an important and controlling influence on the growth of all vegetables. The clearing of forests, tillage, drainage and other operations of civilized man, affect the humidity, dryness and temperature of well settled and cultivated regions far more than is generally supposed. The most careful measurements of the volume and velocity of the Mississippi have resulted in establishing the interesting fact, that it now annually discharges from twenty to twenty-five per cent less water into the Gulf than it did twenty-five years ago.

At the meeting of scientific men in Philadelphia last September, Professors Dickerson and Brow of Mississippi read an elaborate report on the Sediment and Water of the Mississippi; giving the results of *daily observations for eighteen years.*

The Mississippi Valley is found to contain a superficial area of very little short of fourteen hundred thousand square miles. The inquiry therefore here suggests itself, what may be the relative difference between the annual quantity of water falling into this valley and the annual quantity discharged out of it by the river Mississippi? It is found by examination of the meteorological register of the late Dr. H. Tooley, of Natchez, that the mean annual quantity of water which falls at Natchez is between fifty-five and fifty-six inches; but as such has been taken at the southern extremity of the valley it may be regarded as an over estimate for the whole area. The mean quantity is therefore assumed to be fifty-two inches, and then by calculation we will have 169,128,960,000,000 cubic feet as the quantity which falls annually in the whole valley, which is within a fraction of being twelve times the quantity which is discharged by the river.

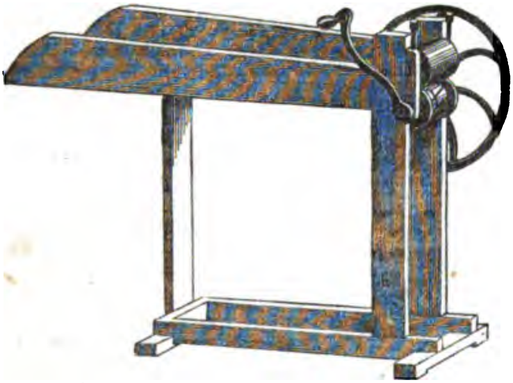
Our own opinion is, that "fifty-two inches" is too high an estimate for the whole area drained by the father of waters. It cannot, however, be less than an average of forty-two inches; so that nine-tenths of all this water evaporates where it falls, in the course of the year, and on the surface of the streams before they reach the lower valley of the Mississippi. Millions of acres of low lands, once long submerged every season, are now dry and cultivated with but comparatively slight assistance from art in the way of embankments; and these such as would not have at all been available against the overflowing effects of former floods and the length of time of their continuance. The river seldom rises to the same elevation as formerly, and when it does it is of much shorter duration, and the waters are almost exclusively confined to the channel of the river, in place of being spread over almost all the bottom lands the whole spring and early part of the summer. All these advantages are progressively but rapidly extending themselves, while the causes remain unsuspected or overlooked, but none the less secure. As a further evidence of the altered condition of this river, we may mention the circumstances, that, in former times, the steamboats, ascending or descending the river, were detained about half their time by dense fogs, while now hardly any such obstructions pervade, so that packets succeed in making their trips to an hour, with no fears of such a retardation. Assuming that the diminution of the waters will continue in somewhat the ratio they have recently done, the time cannot be far distant when all apprehension from inundation will in a great measure pass away. We further remark, as an evidence of change, that the quantity of floating timber or drift wood passing annually down the river has diminished in a far greater ratio than that of the water, so that the aggregate quantity cannot now be over fifty per cent. of that which formerly passed down.

Let us suppose that Europe shall soon send a million of hardy emigrants a year into this magnificent country; and that we shall so deeply and thoroughly till the earth as to make it absorb and retain for the nourishment of plants nineteen-twentieths of all water, to escape into the atmosphere, whence it descended, by solar evaporation through their leaves. What wonderful changes must follow, in the drying and shrinkage of all creeks and rivers in the United States! In its feeble infancy, American Agriculture thousands of miles above Louisiana and Mississippi, is now conferring blessings of incalculable value on those States. Nor will the great Lakes escape the effects of increased evaporation from the felling of forests, deep plowing, and other new influences around all their borders and tributary streams.

In connection with this subject we desire the reader to bear in mind that, any broad vessel set out to catch and hold all the water which falls in rain and snow, and exposed to sun and wind, will be dry from solar evaporation much of the fifty-two weeks in a year. This we regard as an interesting meteorological fact. Another fact of equal importance is, that all or nearly all cultivated plants, like grasses, grains, tubers and roots, contain while growing an average of some seventy-five per cent of their whole weight of water. To supply one's crops with this abundant and indispensable element, and in a way to avoid an excess at any time, is a matter that should be *studied* with the utmost care and diligence. A good husbandman should know how to husband the fertilizing rains, snows and dews of heaven, as they fall on his fields. The water that runs off from plowed land on its surface, is apt to carry with it more or less of the soil. That which sinks deep into the earth and comes out in springs, takes with it, not only salts of lime, potash, soda, magnesia and iron held in solution, but carbonic, crenic, apocrenic, nitric and other acids, and ammonia. In other words, rain-water in passing through soils dissolves out of them both the organic and inorganic (so called) food of plants. *Krene* is the Greek word for a spring; and Berzelius finding two organic acids in spring water, gave them the names "crenic" and "apocrenic," as indicative of their origin.

It is no bad test of the fertility of a soil, to fill a clean barrel with it and see how much of bone earth (phosphate of lime,) gypsum, common salt, epsom salts, potash, and what we call dissolved mold, it will yield to warm rain-water. These being the constituent elements with which Nature builds up all vegetables we deprecate their waste as a national calamity. No matter how deeply they sink into the earth, if they remain in one's field, and rise again to deep, pervious soil can only be formed by nature or man, in which a great deal of water may be stored up for use in seasons of drouth, by a peculiar mechanical condition of the earth, that permits the atmosphere with its oxygen and carbonic acid, to penetrate the same. Fertility can only result from chemical action and changes in the several substances in the surface of the earth. Without change, sand, clay, iron, lime, mold and plants are alike insoluble, and worthless to feed and nourish a new generation of vegetables. Man must study nature and imitate her example if he will make in a cheap and economical way, a rich soil that can endure protracted dry weather with little injury. On this head we shall have more to say. In closing this article we desire to admonish our readers, that the felling of natural forests has already been carried too far in many portions of the United States; and that excessive tillage in growing cotton, tobacco, corn and wheat for export, is fast *leaching*, *wasting* and *consuming* millions of acres of the best lands in the Union. There is neither wisdom, moderation, nor present benefit in this popular system of agriculture.

We will talk about DEWS and the DEW POINT in our next.



HAY, STRAW, AND CORN STALK CUTTER.

THE above is a figure of Ruggles, Nourse, & Mason's Straw Cutter, to which was awarded the first premium at the State Fair at Buffalo, in September last. Though we are not prepared to say it is the best cutting machine extant, we believe it to be one of the most perfect and durable. The knives are set upon the circumference of the cylinder, and cut against a roller of raw-hide, as represented in the engraving. The manufacturers claim that this machine possesses the following named advantages:

> "*First*—The knives being straight, are readily ground or sharpened by the purchaser or operator. *Second*—They can be replaced by a common blacksmith when worn out or broken. *Third*—The knives are made heavier, and attached to the cylinder without sloats or screws; confined at both ends, and supported in the middle in a manner much stronger and less complicated, thus leaving the strength of the knives unimpaired, and avoiding the great liability to twist, cripple, and break. *Fourth*—The manner of attaching the knives to the cylinder admits of their being placed near each other, so as to cut as short as is desirable. *Fifth*—The hide roller, when used with straight knives properly set, will last much longer than when used with the spiral knife."

Some of the machines are made large and strong, and rigged to go by horse power. They vary in price from $10 to $28, according to size — and may be obtained at most of the Agricultural Warehouses. RAPALJE & BRIGGS, of this city, have recently received a very large and superior assortment.

A FABLE, AND ITS APPLICATION.

BY T. C. PETERS.

A RAIN DROP during a shower crept under the cornice, and stood looking very demurely at his fellows, who went laughing and dancing along in the gutter, as full of frolic as a flock of lambs in June. "Why don't you join us?" said a gay fellow, as he went leaping past. "Can't do any good," said the drop; "besides, there are enough of you without me, and I don't see how I can make myself useful in that great black cistern you are all tumbling into. I shall get along by myself and can do a great deal more alone than mixed up and lost as I should be in this great stream."

While thus musing the shower ceased, the bright warm sun came out and in a moment drank up our little drop.

Gentle reader, you and I are but drops in the shower of human life. If we mingle in the great stream, and contribute our mite to add strength and force to the current, to swell the brimming banks until they are overflown, and the fertilizing properties of thought, experience, and observation are spread upon the surrounding country, we are useful, and thus fulfill a portion of our duty to ourselves and to our fellow beings. But, if we stand aloof, unwilling to be lost amid the flood—that ceaseless flood that ever pours on, and can never cease — doing nothing, because we do not at the moment see the good that may come of it—saying, as is so often said by you and others, "somebody else will do it better than I can, therefore I will not bother with these things," we do but represent the little drop, and evaporate, leaving no trace behind.

In agriculture more than in any other pursuit, improvement is only to be made by slowly and patiently gathering facts, and these facts are only to be obtained over a large extent of country.

The experience of every farmer has something that is important to some other farmer, and if each could have the benefit of the experience and judgment of all, the sum of knowledge would be great beyond all that is now known, and greater and better improvements would be the result. For, as you increase knowledge you increase man's capacity for greater knowledge, greater improvement.

Alone, my friend, we are but solitary drops; but if we would do good, we must mingle together and make a strong force. I do not intend to be found under the cornice, and you see me now already mixed up in our friend MOORE's great cistern, with a great many other and better drops than myself. The sun, when he comes out, will not find me alone. I shall, life and health permitted, tumble into this cistern through the year, carrying therein whatever I may gather up that I think can be of the slightest interest to you. And I shall expect to meet you here also. And I must ask you further to do me the favor to introduce me to all your friends and neighbors. Let us do all we can to make the Genesee Farmer worthy of the farmers of Western New York; and if we do that, it will be worthy of any body. "*You will write as much as I do.*" Agreed. Better I know you can if you will only try; so keep your word, and until we meet next month may you be deservedly prosperous. *Darien, N. Y., Dec.*, 1848.

Those who like the *application* of the above, are earnestly invited to comply with its appropriate suggestions, by furnishing facts, results of experiments, observations, &c., to add to the value of the Farmer.

MEMOIR OF ZADOCK PRATT.

ONE of the objects to which this journal is devoted, is the preservation of memorials of eminent farmers, as well as of improvements and discoveries in agriculture and the domestic arts. The example of intelligent industry, courage and integrity, and of perseverance overcoming the disadvantages of time and place, can never be without its use to the rising generation. The best and most useful men are by no means necessarily found among the learned professions, or in the field, or the cabinet; but are quite as often seen working their way in the world among the patient sons of toil. Unambitious of popular applause—anxious only to discharge honorably and faithfully the duties of the citizen, the patriot, and christian — such men are found always at the post of duty — improving and renovating society instead of demoralizing or corrupting it, and by examples of enterprise, integrity and perseverance, ever pointing onward to success — scattering blessings all around them. Those whom the world, in its heedlessness, calls great, may and do for the most part occupy the vantage ground of public station, perhaps as often from the force of circumstances, as real merit, and too many are pronounced honorable and worthy, merely from the reflected honor which that station may happen to confer. But there is many a plain farmer and mechanic, in his quiet and serene home, among his neighbors and friends, who, if brought out by opportunity, is as truly a great man, in all the elements of real worth, as the proudest politician or statesman in the land. He is always a reliable man, because less liable to be deceived, or to deceive others. Go any where among an intelligent farming community, in any well cultivated region of our country, and you will find this to be true. They produce— they create—they add to the national wealth, instead of diminishing its resources — and are in fact the conservators of our political and social system.

There are few of our readers who have not heard of the great tanner, ZADOCK PRATT—distinguished for his enterprise and success in establishing and conducting for twenty years the largest tanning establishment in the world. We have more than once alluded to this gentleman in our pages, and propose now to speak of him principally as a FARMER, in which occupation he has been equally successful, as in every enterprise he has ever undertaken. Of his career as a legislator, though it has been honorable and eminently useful, and attended with practical results of which any public man might well be proud, we have not space to give a particular account; but we trust the time is not far distant when a full biography will be written. For the present we must content ourselves with the following brief summary.

Col. PRATT was born on the 30th of October, 1790, at Stephentown, Rensselaer county, New York. In selecting him as the subject of this notice, we have been actuated by a desire to do honor to that enterprising spirit which has marked his whole history, and which shines forth as an illustrious example, worthy of being adopted by the rising generation. The life of one practical man, like Franklin, Whitney, or Fulton, it has been well said, is of more real value than all the mere heroes the world has ever produced. These men rose from the masses, and as you trace their history you see how, by indomitable energy and perseverance they attained that celebrity which the world admired. Tribute has been paid in every land to their names, where the light of improvement and science has found its way.

Col. PRATT has evinced from his very youth, a spirit of industry and energy of character, that to all who watched his early history, gave evidence of the success which finally crowned his efforts. The establishment and successful prosecution of his extensive tannery among the mountains of Greene, have spread far and wide his fame, as one of the most intelligent and successful mechanics this country has ever produced. The delightful and prosperous village in which he lives, bears evidence of his judgment, liberality, and public spirit, which few other villages in our country can boast of. But we have not space to extend our remarks in relation to his successful prosecution of his mechanical pursuits.[*]

We would allude briefly to him in the capacity of a farmer. He has often been heard to remark that he owes his early love of industrious occupation to the counsels and example of his mother. And how seldom is it that any man has risen to great distinction in this world who has not owed that elevation to a kind and faithful mother, who, at the first dawn of the intellect, seized the favorable moment to impress upon it those all-important truths which were matured with the growth, and decided, under the blessing of Heaven, the destiny of the child. But to return— this mother was a woman of remarkable energy, and early taught her son the importance of industry and integrity — the duty of active exertion in life — the necessity of economy to those who would be successful, and to those who would achieve the great aim of living, which is to do good and be useful. He was also enjoined by her to observe the Sabbath steadily, and avoid the odious vice of gambling, which he has through life been ever careful to do, as well as to impress the same great moral lessons upon others— requiring from all in his employ, rest for man and beast on the Sabbath.

Every one acquainted with the manner of conducting mechanical business in the country forty years ago, knows that the mechanic relied almost as much upon the products of his little farm, as upon the income of his shop; and where the population was not large, and capital not abundant, many of the most successful men were those who steadily pursued this two-fold occupation. Col. PRATT, while yet a lad, was thus initiated by his father into all the mysteries of farming, and learned the use of the axe, the scythe and the sickle, and to love the pursuit as congenial to health and independence, and the one which, in all countries, must be the great calling of the masses. When twelve years of age, he helped his father clear ten acres of new land, and in the following year enjoyed the pleasure of aiding in gathering the welcome harvest of wheat. This was in Middleburgh, Schoharie county, upon what was called the Scotch Patent; but the improvements they made were of little permanent advantage to the hard working tenants, for their landlord (Livingston,) some two years afterwards ejected them, taking away the farm and consuming all their little substance in costs of litigation;—and this incident with its hardships determined Col. Pratt never to have any thing to do with leaseholds and litigation. Removing in 1803 to Windham, (now Lexington,) he helped his father clear six acres of land for a crop, where there has since grown up a fine grove of young timber. Here during the proper season he was employed in that pleasant occupation, now well understood and successfully practiced, in many parts of the country, of making *maple sugar*; an article then used in the new settlements, and almost the only sugar used in the majority of families. There is still upon the old homestead a stone wall of some fifty rods in length, which Col. P. feels a little pride in having assisted his father to build when quite a boy.

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[*] In relation to this it may be sufficient to say, that in about twenty years, at his tannery in Prattsville, the most extensive in the world, about 1,000,000 sides of sole leather were manufactured—the yearly expenses of which were about $800,000, and the total expenses about $6,000,000. This immense business has been conducted we understand, without a single instance of litigation. Colonel PRATT, a few years since, established in the village of Prattsville a Bank with a capital of $100,000, which has proved of great service to the community, doing a business annually of one million of dollars.

In a newly settled country, the advantages of of schooling were very few, and Col. Pratt gained part of his education by working out of school for his board. Beginning life by working out upon the farm and in the shop, or tannery—for several seasons in the summer months engaged in mowing at seventy-five cents per day, and in the harvest-field at $1 a day—he had few of the advantages which young men of the present generation have; but he mastered enough of the English branches to be thorough in business, and his success in life is the best possible commentary upon the value of his judgment and acquirements.

From the commencement of his tanning operations in the village which now bears his name, all his energies were necessarily directed to the success of that great enterprise. He saw, however, the importance, in a pecuniary view of using none but the best teams in his multifarious operations of hauling bark and transport of hides and leather to and from the Hudson; and very soon commenced and steadily improved a fine farm in the outskirts of his village. Here he gave great attention to rearing and improving the best breeds of cattle, and introducing into that region of country the very best bloods of that noble animal, the horse. He has had during some years upon his farm nearly a hundred head of cattle, and has taken a deep interest in all the improvements in the business of farming, believing that upon its success depends in a great degree our national prosperity. In one single season he erected upon his farm in Greene county, nearly five miles of substantial stone wall. On one of his farms, by a judicious system of draining and manuring, lands which yielded when he took possession of them, only one ton of hay per acre, were brought to an average yield of three tons. This, too, under his own personal labor and direction. Many other improvements of a like character have been the results of his labor as a farmer. And it may be said that in his extensive tanning and building operations he has been indirectly the greatest clearer of lands in this country—having consumed the bark from 10,000 acres of forest land, which caused some 7,000 acres to be cleared.

As success crowned his industry in mechanical pursuits, he turned his attention to the improvement of the village which had begun to grow under his liberal auspices. He was successful, and both friends and neighbors also flourished. , More than one hundred of the houses were erected by Col. Pratt himself, and the churches and other public edifices, are evidences of his liberality, all of which received liberal contributions from his own funds, and are still as liberally sustained. In the disposition of building lots, he was always liberal to the poor, frequently aiding them in the erection of their dwellings.

He became early a member of the Greene County Agricultural Society, and boldly advocated the elevation of that important class of the community engaged in agriculture—the bone and sinew of our population. His fellow citizens having witnessed his energy, perseverance and public spirit, called him from his retirement to the councils of the nation. His election to Congress took place in 1836, by a majority of more than 2700. While in Congress, he did not forget the interests of the farmer. He originated the proposition which was adopted by Congress, providing for the introduction, through our Consuls and Naval Officers of seeds and plants from foreign countries for gratuitous distribution, and which if carried out, as it deserves to be, will benefit largely our country. Already, through the attention of the Commissioner of Patents, through whose office the distribution takes place, the most salutary results have been secured.

While in Congress he moved a bill directing that a portion of the Smithsonian Fund be appropriated for the improvement of Agriculture and the Mechanic Arts. To what nobler end could this magnificent gift have been devoted and in what manner could the great mass of our population have been so much benefitted as by this disposition of these funds?

In 1845 Col. Pratt, on his election as President of the Agricultural Society of his county, delivered an address which evidences the same good sense which marks his career in every other station he has been called upon to occupy. As a plain, practical, useful man, where can we find his superior? A few extracts from his addresses are the best comments we can give of his peculiar fitness for the station to which he had been called:—

Gentlemen:—You have chosen for your President one who does not boast the graces of eloquence, and you cannot, and do not expect from him, on this occasion, a display of fine words and happy fancies, but rather a plain statement of true and practical ideas. You are working men, and you have chosen a working man: and it is on this account that your choice confers honor upon me. It was in Congress, where my strength has always been given to the protection and advancement of American labor, that I heard of this new evidence of your kindness and confidence; and I thank you for it, and for thus affording me another opportunity, and a more honorable place than the Halls of Legislation, to express my high sense of the dignity of those occupations, the inteseats of which this Society is so happily designed to promote. I need not say to those who know me, that through life I have practiced and encouraged industry, and exerted my influence in every sphere, (according to my ability,) in promoting the true welfare of my fellow men. I have acted upon the principle, and so have you, that it is not mere physical or mental structure that makes the man, in the best sense of the word, but the mode of life. It is not to have a head—a heart—an arm—a human body and soul, that makes one worthy of so noble a name; but to give the wisdom of that head—the strength of that arm—the combined energy of all the powers to constant and useful industry. The hard-working farmers and mechanics of our country are its glory and strength, their labors have produced wealth; their honesty, their patriotism and its faithfulness to the institutions of liberty, have given it its standing among nations; and in times of danger, their strong arms and firm hearts are its safeguard. He is not the Lord of the soil who calls so many acres his own, yet has no power to use them; but he, rather, who plows and sows, and reaps, and scatters abroad over the country the products of the glorious harvest, to feed the hungry and clothe the naked. He is not master over earth's treasures who has the bare title to a mine; but rather he whose skill and industry raises the ore—reduces the metal—moulds it into countless shapes of usefulness—and sets to work the gigantic engine with its thousand hands. Farmers and mechanics, if faithful to their duties, are men in the full meaning of the word—useful men—men that the world cannot do without. Their occupations develope all the faculties, and produce "sound minds in sound bodies;" they accustom men to rely on their own strength, to love labor, and to feel the independence of other men, and that contempt of little difficulties which are the foundation of true greatness of mind.

These, fellow-workingmen, are the occupations, this is the land, ours the institutions, and our fathers the stock which have produced the noblest race now living; and shall, if we value and use our privileges aright, yet exhibit human nature in its highest standard of perfection. We have resources and advantages possessed by no other nation, and a people better fitted than any other to develope these resources and improve those advantages. We need little aid from abroad, for we have every thing at home; we need little teaching from strangers, for we know best what is best for ourselves. According to my observation, farmers are too easily persuaded to look to other states and countries for the means of increasing the products of their fields, and improving their flocks and herds. We are not in England, nor at the north, nor at the south; and neither English, northern, or southern improvements are what we want. We want improvements of our own, suited to our own wants and position, such as none can make for us as well as we can make them for ourselves. Is it not better, as a general principle, both as to animals and vegetables, to choose and improve the best of such as are already adapted to our climate and soil, than to be shifting and changing, in the vain hope of arriving, by some short cut, at such results as God intended we should accomplish only by close attention and the sweat of our brows?

After some very judicious remarks as to the kind of horses best suited to the wants of the farmer, he says:—

What I have said as to horses being improved on the foundation of our native stock, applies with equal force to cattle. In every settlement, a stock of good cattle is of the highest importance; and every sagacious farmer will learn to choose, for breeders, such as promise best for his particular object, whether it be butter, beef, cheese, or labor; and he should study this subject with a deep feeling of scientific interest, as well as for the sake of gain. Let his first care be to put aside the very best progeny of his stock, and never permit his dearest friend to cast a wistful eye on them, nor be tempted by any price to sacrifice them to the butcher's knife. If he has a favorite cow, of the real fill-pail breed, let him reserve and turn out that one of her calves that most resembles herself, before it grows old enough to be sold to the butcher, and always guard it with special care.

We read of premiums being given to large imported cows that have yielded some thirty quarts a day; but every dairy woman will tell you that it is not the cow that gives the largest quantity at a milking, that makes the best one in the long run. A better one still is she that keeps on through the year, the same in winter as well as summer, let the food be short or long. Run fast is a good dame, but hold fast is a better one.

In the agricultural journals I have read an account of a middle-sized country cow: I fefer to the celebrated Oaks Cow, bought out of a drove in Massachusetts, for a mere trifle. Her history illustrates two things worthy of note. First, what we can obtain from the best of our old breed; and secondly. how much depends on good feeding.—And just as it was with the Oaks Cow, so will every man find it with his farm. If he won't feed his farm, and that often and well, he need not expect it long to feed him. Always taking out of the meal-tub, and never putting in, will soon come to the bottom, as poor Richard says. But to return to the Oaks Cows, that did so much honor to the name of Caleb Oakes: it is stated on the most unquestionable authority, such as satisfied the Massachusetts Agricultural Society, that in the first year, with ordinary keep, she ate twelve bushels of corn-meal, and then gave 300 pounds of butter; the next, 35 bushels, and she gave more than 400 pounds; the next year she had a bushel of meal a week, and all her own milk skimmed, and then she gave, from the 5th of April to the 25th of September, the day of the show, 484 pounds, besides suckling her calf for five weeks. She was exhibited, and deservedly took the premium on the last mentioned day; and will carry down her owners name, with credit, to posterity, as long as Oaks grow.

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Before I close these remarks, let me suggest (being myself a father, with some opportunities of observation) that you should incline your sons, above all things, to prize the honest station, however humble, which is gained by personal industry, and enjoyed without dependence on the capricious breath of party, or of any mortal man in power.

Any honest pursuit will be esteemed by a young man of independent spirit and honorable ambition, in preference to being seen lounging in the anti-chambers of public departments and the lobbies of the Capitol, a suppliant for the precarious emoluments of office. Let it ever be deemed a high honor by those who are qualified to be called on to serve the people; but when you see your son, made in the image of his God, inclined to quit the handles of his plow, or throw down his hammer, and sell his birth-right for a mess of pottage—put into his hands the homely fable of the dog and wolf, which inculcates the love of independence as a boon above all price.

It is the independent spirit of our people that ranks them above all other nations of the earth: because each man has in himself the ability and resolution to accomplish his ends, of and by himself. It is on this account that an American can be cast penniless and alone in any corner of the earth, and amongst any people, and instead of wasting his life out a poor and despised stranger, he will summon his energies and bear himself like a conqueror. Whatever the natives are doing, he does it better than they: he makes the most money—exerts the most influence, and soon becomes a leader and a prince among them. From soleing a shoe to leading an army, he shows himself in all things capable, in all things superior; and having accumulated sufficient fortune for himself, and honor for his country abroad, he returns to lay at her feet the spoils of other lands, and enjoy in his native home the society of his equals. What does such a man want of official patronage or protection? He scorns to eat the bread he has not earned, or to enjoy honors he has not deserved.

The farming interests of Greene have been greatly benefitted by his exertions while President of the Society. A new impulse has been given to the cause of Agriculture, and long will the County remember the zeal, the energy with which he devoted himself to the advancement of this all-important interest. During his presidency he contributed in various ways over $500 to the funds of the Society, to be expended in judicious premiums; and the effects, as might have been expected, have been most salutary in increasing and greatly extending the usefulness of the Society.

In presenting to the Society in 1845 the sum of $250 to be added to the amount of premiums to be given, he remarked—

Peculiarly adapted as our country is to pasturage, and conveniently situated for sending the productions of its soil to the great emporium, which furnishes always a ready and profitable market, I confess that I should like to see a liberal portion of the premiums distributed by our Society for exciting emulation in the making of butter and cheese, as well as for encouraging attention to the best breeds of cattle suited to our highland regions. The name of Orange or Delaware county is a creditable passport for butter all over the Union; and is there any good reason why the dairies of Greene county (even to the summit of the Catskill mountains) may not be made to compete with old Orange or Delaware, or any other county, in the articles which it sends to produce market?—and for raising hardy horses, the highland is superior to any other. No branches of agricultural industry are more profitable when properly pursued, and let it be our aim, as a Society and as individuals, to stimulate attention to their advantages.

Without wishing to obtrude my opinions on men more familiar with the subject, I would respectfully suggest that the premium list be arranged so as to excite more attention to the improvement of our native breed of cattle and horses, as probably calculated to weather our climate better than some of the imported breeds—though I would not be understood as underrating the very valuable qualities developed by careful experienced culture in the management of live stock.

The Society on receiving this donation, gave this much merited testimonial to their fellow citizen :

Whereas, the Hon. Zadock Pratt, with his characteristic liberality, has presented to this Society the sum of $250, and this donation furnishing another evidence (among numerous other instances) of his good will towards, and attachment to the interests of the Society, as well as of his generous disposition, and a desire to promote all useful and laudable purposes and pursuits. Therefore—

Resolved, That the thanks of the Greene County Agricultural Society be presented to the Hon. Zadock Pratt, for the munificent gift, together with the best wishes of the Society for a long life to him of public usefulness and honor, and for his individual happiness.

He was three times elected President of the Society, and declined, at their meeting in 1847, a re-election. He addressed some appropriate remarks on that occasion, to a large assembly of farmers at Windham, at the Annual Show, and congratulated them upon the improved condition of agriculture in our state. He spoke of the energy and zeal with which the farmers of Greene had come up to this great festival —"As lords of the soil, with cheerful faces and hearts overflowing with gratitude at their privileges in this land of the free, where, by the labor of their own hands, they earned their own bread — members, too, of a government which derived its powers from them — what was to prevent them from being happy? This day is indeed the Farmer's Jubilee — a day of thanksgiving for the abundant products of our land, as well as for life, liberty and happiness — a day to rest from the toils of labor, unbend the bow, compare notes with each other, extend acquaintance — in short, the great *Intellectual Feast* of the farmer."

After introducing the orator on this occasion, (Mr. Johnson, of Albany,) he held up to the view of the audience a silver medal awarded him for the best *hemlock tanned leather* by the American Institute. "Every man," said he, "possesses some pride, and it was well it was so, else why were we here to-day? The great object of life is *to be useful* — and why then should we be as misers, who keep their money out of sight, to do no good to themselves or to any body else. 'Tis for this reason I show you this testimonial — how else would you know it?"

The Report which Col. Pratt made to the State Society of the proceedings of the Society of his county, during the year 1847, which will be found in the Transactions of the Society, is among the noblest and most useful reports in that excellent volume. It gives an extended account of the history, condition and resources of the county, and may well serve as a model for other societies in making up their reports.

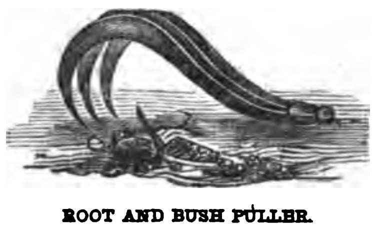
We cannot better conclude this brief article, than by copying the following from a notice of Mr. Pratt, which we find in the Knickerbocker Magazine, for January, 1847 : —

While in Congress, Mr. Pratt devoted himself to the *utility* of legislation ; and his example certainly demonstrates the advantage of sending men of practical business habits to our national council, and shows 'how much that is really important to the people may be performed by one man, when he is more anxious to *act* than to *speak*.' His speeches were confined to plain statements of important facts which he had thoroughly investigated. It is to Mr. Pratt, as a member of the congressional committee on public buildings, that the capital is indebted for the beautiful General Post-Office edifice ; but for his exertions, it would have been erected of the porous sand-stone which in process of time crumbles like wet gingerbread, instead of the admirable marble of which it is constructed. He was an early and ardent advocate of the cheap postage reform ; of the improvement of the public grounds at Washington ; he introduced the resolution for the Branch Mint at New York ; for the publication and engraving of all the important inventions patented at Washington, to be distributed throughout the country ; to require, once every two years, an inventory of the public property in the hands of public agents ; for the establishment of a Bureau of Statistics ; and various other important measures, which we have not space to enumerate, being over fifty in all. Indeed, the reports made to Congress by Mr. Pratt cover more than a thousand pages, during his career in that body, to which he declined a re-election, in an able address to his constituents, giving a faithful account of his stewardship.

At first a poor boy, yet always true to the "dignity of labor;" energetic and persevering ; living *with* and not *upon* his neighbors, as he advanced in means ; liberal and true-hearted, in private as in public life, Mr. Pratt presents an example which we hope will be lost upon no young reader of these pages. We are glad to know that he is still in the prime of life, and in the full enjoyment of his bodily and mental vigor ; a fact, indeed, which is sufficiently evinced by his portrait, which combines, in no ordinary degree, the appearance of health, self-possessed dignity, firmness and kindness. In looking at this picture, in hearing the original converse, and in reading the sketch of his life, we have been confirmed in a long-settled belief that that man is scarcely half-educated who has not in his early years had something to struggle for, and who has not at some period of his life lived among "*the people*" in the country. There is scarcely one of our most eminent public men whose private and public history is not an illustration of this undeniable fact ; and it is a fact full of encouragement and hope to the toiling, self-denying, self-respecting country boy.

In whatever position we view the character of Col. P., whether as a farmer, tanner, legislator or banker, he has been eminently successful, without impeding the progress of others — developing those rare qualities which are so happily united in him, of sound judgment, prompt and efficient action and execution and far reaching sagacity, blended with the kindest and most benevolent impulses. Such is a brief history of one who has thus far lived only to do good, and whose life we trust will long be spared to bless his country and the world.

We close by mentioning the highly honorable fact that Col. Pratt is the first self-taught farmer and mechanic in our country, who has received the honorary degree of Master of Arts, from one of our highest literary institutions — an honor richly merited by him, and reflecting credit on the distinguished institution (Union College) by which it was conferred.



ROOT AND BUSH PULLER.

This implement is very effective in tearing out stools or clumps of small bushels, which grow in wet, boggy land. It is made by inch and inch and a half bar iron, with two, three, or four prongs, weighing from twenty to forty pounds. The ground is first, if the roots are large and thick, loosened around the bushes, when the claw or pull is fastened to one side, and a pair of oxen attached by means of a chain to the implement. At the word given, the bushes are torn out by the roots. One man, with a smart and well broken pair of oxen, will thus do the work of ten men. Price from $2 to $5. Manufactured by Ruggles, Nourse & Mason, Boston, and for sale at the Albany and other Ag'l Warehouses.

AGRICULTURAL ASSOCIATIONS.

BY AGRICOLA.

The importance of Agriculture as a pursuit is acknowledged by all, although but few, comparatively, appreciate it as they should. Its successful prosecution requires mental as well as physical energy, and it is not among the least of the favorable indications of the times, that the importance of education adapted to a progressive and enlightened system of farming, is exciting public attention. My object at present is to offer your readers some considerations in favor of Agricultural Associations, as connected with improvement.

Since 1841 State and County Societies have been in operation in this State, and the question arises, "Have they been the means of advancing the true interests of the farmer?—What is the tendency of these Societies?" The farmers in any county, as a body, have few opportunities of mingling together, of exchanging opinions and learning the results of the efforts of each other's mode of operations. Once a year, however, through these associations they are brought together; every improvement which has been made, every experiment tried, becomes the subject of conversation, and many a farmer has returned to his farm, with new incentives to action, and with new resolutions that his course shall be so changed as to advance the interests entrusted to him. A spirit of emulation is aroused, and the appearance of the farms in many of the counties of this State, affords the best evidence that a spirit has been aroused to some good and valuable purpose. The mere assembling together of a body of intelligent farmers, for a common purpose, relating to their profession, cannot fail to arouse a spirit of inquiry in every right mind. The importance of his profession is more deeply impressed upon the farmer—and he feels that he has interests at stake that take a far wider range than the limited spot where he dwells.

But the influence of these associations are by no means confined to their annual meetings. The publication of their proceedings—the valuable articles from practical farmers which find their place in the Agricultural Journals of our country, are exercising continually a most salutary influence. Every new discovery made by the farmer is, through his association, or by himself, directly spread before the public—and the example of one man, it may be, in this direction, will in the end induce many others to make new and vigorous efforts to advance the cause.

Can any one doubt that the improvements in the various breeds of animals in this State, which to the most common observer must be apparent, have not arisen in a great measure from the influence which Agricultural Societies have exerted. What has induced our farmers in so many instances to adopt an entire new system of farming, by which their products are increased, their farms cultivated in a much neater and more systematic manner? Is it too much to say that here, too, the influence of these associations has been felt? Have not these Associations done much for the improvement in the cultivation of fruit in our State—a branch of the farmer's business of no ordinary importance? The experience of the year which is now past, so far as the information has reached the writer, has proved most bountiful in proof of the value of these societies. More and deeper interest is apparent among all classes of community, and the Annual Shows are now the holidays not only of the farmers and their wives and daughters, but of every class in community. How few indeed can be found, who do not desire to have it understood, that they take a deep interest in the success of the farmer. Many professional men and merchants can be found in every village in our State, who delight to give attention to the cultivation of fruit, and to appear as competitors at the shows, and thus plainly indicate that they have been made to feel that the farmer's pursuit is one of no little importance.

There are many other considerations which are apparent to every one, which might be urged, but those already adduced are sufficient to satisfy your readers of the importance of these Associations. Shall they, then, be sustained? Will the farmers more generally come up to their aid, and give their influence and exert themselves to extend far more widely their benefits, and make them, in every respect, what they should be? These are questions which come home to the bosom of every farmer, and may I not ask that each ponder them well, and let them receive the attention which they deserve.

Let no one imagine that I undervalue the labors of the Agricultural Journals of our country. I most cheerfully award to them great merit. They have done nobly for the cause, and I could wish that they might find a lodgment in *every farm house* in our land, instead of a comparative small proportion, as they now do. The language of the editor of one of these journals at the West, a journal that is freighted monthly with blessings for the freemen of that new world, expresses much on this subject. After giving a very interesting account of the Show of the State Society at Buffalo the past season, he says:—"I am confident, since being here, that this Society does as much as any one thing, if not more, to keep alive the cause of improvement. If it should be said, that its influence is not equal to that of the Agricultural Journals, I will reply that the Agricultural Journals *are themselves sustained by it.* Could such an institution as this, or even a dozen smaller ones—well distributed—be kept in vigor, in the region of circulation of the Prairie Farmer, its circulation would be quadrupled, if not more, in three years."

Such are my views, and I ask, do they not commend themselves to every mind, upon a moment's reflection? If then you would encourage improvement—if you would sustain liberally the Agricultural Journals of the country—if you would do most for the cause which I doubt not is dear to you—encourage and sustain the Agricultural Associations around you, by your own personal efforts, and by encouraging your neighbors with you to go forward and sustain them and increase their influence and their usefulness.

* * *

Never grow anything carelessly. If it be worth growing at all, it is worth growing properly. Jerusalem Artichokes and Horseradish are both treated ill, but there is no comparison in their quality when treated as weeds, and when cultivated as they should be. Both ought to be planted in clean ground every year, though horseradish is better two years old or three; and as they come ready, clear the ground of them. Artichokes may be cleared out once a year.

* * *

Never buy any quantity of seed without knowing the party you buy of; and before you depend on it for a crop, put a hundred grains in a hot-bed, and see what proportion is alive and what dead.

WIRE FENCE—MODE OF MAKING, EXPENSE, ETC.

BY MYRON ADAMS.

MESSRS. EDITORS:—Having lately completed twenty-four rods of wire fence, and knowing that many farmers intend building such fence if it is found to answer a good purpose, I am induced to give a detailed account of it, that others may profit by my experience.

In the first place I would premise that this fence extends from my house (which is situated on a considerable elevation,) to the highway, and is therefore more expensive than ordinary fences upon the farm. At each end of the fence I set a large cedar post three feet in the ground, and brace it firmly in the direction of the fence. The brace is about eight feet long, and extends from the top of the post to a large stone placed firmly in the ground. Two other cedar posts are placed at unequal distances between the outside posts, on account of the irregular descent of the ground. All the other posts are of band iron 1¼ inches wide, ¼ inch thick, and placed one rod apart. Intermediate posts are placed between these, extending only to the fifth wire, and made of half-inch band iron. All of these posts are punched with holes for the wires to pass through. The long posts pass through large flat stones and are clinched on the under side. These stones are firmly bedded in the ground. The posts should be fastened in these stones by pouring around them melted lead or brimstone.

The wires used are Nos. 10 and 12, and I am confident these are the best sizes where a strong fence is required. In building, I commence by running the upper wire through first, which is four feet from the ground. The second wire is ten inches below the upper, both of which are of No. 10 wire. The third wire is eight inches below the second and of No. 12 wire. The fourth wire is six inches below the third and of No. 10 wire, and so alternating the two sizes of wire to the bottom. The distances of the remaining lower wires apart are 5, 5, 4, 4, 4, inches. The wires, after passing through the lower post, are fastened firmly, which I did by passing them through a strap of iron and coiling the ends.

I don't know that I can describe the manner of straining the wires intelligibly, but I will try. At the upper end of the fence, after the wires have passed through the post, they also pass through a plank of the same width and height. Each wire is then passed through a roller 1½ inches in diameter and 6 inches long, having one end tenanted for a crank. A board of the length and width of the plank is placed upon these rollers. After each wire is strained by turning the rollers, a pin is passed through the board and roller into the plank, which fastens them firmly. The wires will contract some in cold weather and should not be drawn too tight, at first.

As to the expense, I can not be as definite as I could wish, as some of the wire purchased was too small. I have used about 110 lbs. of wire, costing $9,50. Twenty iron posts at 6 cts. each, $1,25; 20 short posts at 3 cts. each, 60 cts; 4 cedar posts $1, making $4; painting $1—making an amount of $16,35.

Since the fence was completed I have had it broken through once by an ox racing with a horseman.—I have found that the wires break only where the ends are looped together. I have since joined them by flattening the ends, laying them together and winding them for four inches with a small wire. This is the manner of joining them at the Niagara Suspension Bridge. The wires of this bridge are boiled in linseed oil, which forms an impervious coating, and probably toughens the wire.

As to the strength of the fence, I think it sufficient to withstand any ordinary pressure. Wires of the same size at the Suspension Bridge are each strained to a tension of 1500 lbs. The great objection to this fence, in the minds of many people, is its being invisible. This is why I like it, as it does not mar the beauty of the landscape.

In conclusion I would say that I like this fence, because the winds make no impression upon it—no snow banks form beside it—it occupies no space—costs less than the painting of a good board fence, and, although invisible, looks beautifully when the ground is covered with snow; and as to its durability, if wire bridges will endure, surely wire fences will last an age. *East Bloomfield, N. Y., Dec., 1848.*

SEEDING WITH CLOVER.—LUCERNE.

BY F. W. LAY.

MESSRS. EDITORS:—As this is the time of year in which farmers are, or at least should be, making calculations and plans for the coming season, it may not be amiss to state one fact in relation to seeding with clover.

I believe it is not generally known among agriculturists that when wheat is sown in the fall with one plowing, as in wheat after oats or barley, or a clover sod turned over, that clover will not grow and live if sown on the ground in the spring after. It will vegetate and seem to start well, but will soon wither and die. I have noticed this in repeated instances, both among my own crops and those of my neighbors. Why it is, I leave with those who have more time to examine the subject to determine. (Can't Dr. LEE tell us?) I think this of considerable importance to be known, as many lose not only the trouble and expense of procuring and sowing the seed, but are also disappointed in their calculations of crops and rotations. It may be that on some soils and under some circumstances clover may grow, but in my observations for the last six years I have never known it to come to any thing.

I see by the last Farmer that you think Lucerne can be cultivated and made profitable. Have you ever seen it tried to any extent in this country? Some time since I visited the farm of Mr. ROBINSON, in Hartland, Niagara county, an English gentleman, and one of the best farmers and most successful experimentalists that I have ever seen. He told me that he had considerable experience with Lucerne, both in this country and in Europe, and had entirely abandoned it as not adapted to our soil and climate. I should like to see statements from any person who has tried it extensively, together with the result.—*Greece, N. Y., Dec., 1848.*

* * *

DRAIN all your lands, that the surface may be laid level. Never resort to open or surface drains, if you can help it; they create much water, especially in grass lands. Some meadows are absolutely spoiled by surface draining.

* * *

GROUND that is to be vacant in winter time should always be left rough or in ridges. The more the frost can penetrate it, the better it is. If the whole depth of a spade could be frozen through, it would be as good as a coat of dung.

PEAT MUCK, LIME, PLASTER, AND ASHES.

BY S. BARRETT.

Messrs. Editors: — Having a little snow, and wishing to improve the "sleighing," (though rather out of season,) I have commenced hauling muck, for the purpose of increasing the manure heap.— I think I have a pretty good supply of the raw material. Some twenty rods from my barn I have a pit of muck. It covers about three-fourths of an acre of surface, and is from two to six feet in depth. It is of a dark brown, when thrown up, but most of it turns black on exposure to the air.

I had a man from the "land of bogs" to throw it up for me. He cut a large ditch across two sides of it, which answers the double purpose of bringing up the muck and draining the water off, so that the remainder will bear good grass. Some of it, he said, looked very much like the peat they burn in the "ould counthry." At the bottom, it appears to be composed mostly of leaves; their form is very distinctly to be seen, but is very rotten. How long these substances have lain there it would be difficult to conjecture. Trees of two feet over or more have grown upon the ground.

The properties of this muck, I suppose, could not be ascertained without a chemical analysis; but its effects on lands I intend to test in various ways, and after a careful series of experiments, you may expect to hear from me again. To-day I have thrown some in my hog-pen and put some by my horse stable; and when our winter gets a little *bigger*, and I have a little more leisure, I shall put a larger quantity in my barn yards, and let the cattle, sheep and hogs have the pleasure of mixing it well with straw and litter.

And now I want to put in an inquiry or two, which is the object of this communication. It is about the use of lime, plaster, and ashes. I know not when nor how to use lime; my land I think evidently needs it, especially for the production of wheat. But I have seen some statements of lime being used in compost, where it was a positive injury. As for plaster, is it better to put it into the heap, or to sow it on the land? And leached ashes, whether a farmer can, with profit, draw them four or five miles?—and if so, whether he had better put them in the yard, and then load and haul them out again? As for lime, which would be economy, in drawing it eight or ten miles, to buy that which is air-slaked and pay some five cents per bushel, or take the real article fresh from the kiln and pay double that price? If you will give us some light on these subjects, you will not only oblige the writer, but, as he thinks, confer a favor on many of your readers.

Ridgeway, N. Y., Nov., 1848.

Remarks. — The description our correspondent gives of his "muck," shews it to be pure decayed vegetable matter, having undergone the last stages of decomposition, and is the material known as *peat.* It possesses none of the properties of manure alone, and can not be stimulated into fermentation by any of the mineral salts or earths. If charred it becomes a kind of charcoal or coke, and is highly carbonaceous and a capital absorbent of ammonia and the other gasses and salts of animal manure. In a raw state, it is valuable to distribute in manure heaps, and in sheds and among composts. In open barn yards it is objectionable, as it produces a very unctious and disagreeable black mud.

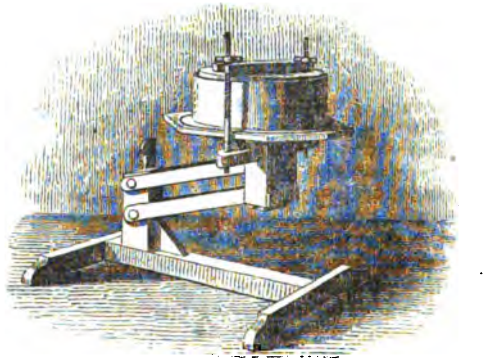
Mixed with clayey heavy soils it has a good effect mechanically, if not chemically, in rendering it open, light, and pervious to water and air. It is entirely different from the sediment of ponds, as this contains recent vegetable and some animal matter, lime, clay, and silecious earths in a very fine and comminuted state, and is a strong stimulating manure on any soil.

If the soil needs lime, apply it by spreading or sowing on the surface; never mix it with recent or fermentable manures. Air slaked is just as valuable as quick lime, as it has to become a hydrate before it can act; if one bushel of quick lime will make two when slaked, it is of course worth twice as much.

Plaster for wheat should be dragged in, in the fall at sowing, and for all other crops be used as a top dressing. Ashes may be used in any and all ways; it never comes amiss. As well as plaster, it may be mixed in the manure heaps, in stables and sheds; or used as a top dressing. If you can buy in your own neighborhood fresh ashes for eight or ten cents, don't think of drawing the leached article four or five miles. They are worth more than plaster, for any crop— particularly on sandy or loamy soils — although its effects are not as lasting. A bushel of plaster weighs about 100 lbs., for which we pay at the mills 12½ cts per hundred, and good house ashes can be purchased at 6 to 10 cts. If our readers think as we do of the value of ashes, the question is easily settled as to their relative value. *

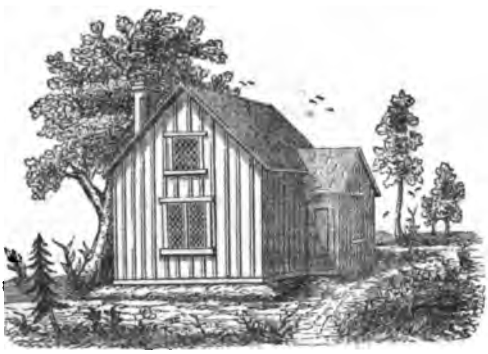
COLLIN'S AND STONE'S PATENT CHEESE PRESS.

The annexed figure and description of this very valuable implement, we copy from the Catalogue of the Albany Agricultural Warehouse:

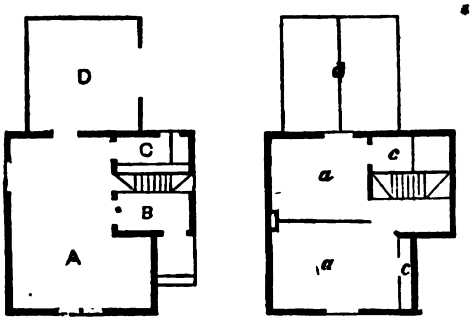


"This cut is a correct view of the press in actual use. It is constructed by means of double or compound levers, which are so arranged that the weight of the cheese or curd is the power which presses itself, and as they are usually made, press in a ten or twelve fold ratio. This is found enough for the commencement of the process, but when more is required, it is added by simply placing on the platform an extra weight, as a brick weighing four pounds would give forty to forty-eight pounds of extra pressure. It is sufficiently strong to hold a cheese of 150 or 200 pounds weight. The press is loosened in an instant by a small lever, about four or five feet long, and a child can loosen it. By hooking down the lever, the press answers every purpose of a table to turn and trim the cheese upon. The whole weighs from thirty to fifty pounds complete, and occupies a space of about two feet square. There are three sizes now made: No. 1, smallest, $5,00; No. 2, second, $5,50; No. 3, largest, $6,00."

Rural Architecture.



ELEVATION.



FIRST FLOOR. SECOND FLOOR.

PLAN OF A CHEAP COTTAGE.

MESSRS. EDITORS :—In planning our dwellings we men of small means find it prudent to consult more the length of our purses, than our desires for the ornamental or even the most perfect convenience. But we are glad if, in such approximations toward the latter as our means and knowledge permit, we can at all gratify our sense, vague and crude it may be, of the picturesque and beautiful. I am not sure that the least possible expenditure necessary to the production of a comfortable dwelling is not entirely compatible with the most classical correctness of parts and proportions, and adaptation to site and scenery. However this may be, it does not seem to me to be often done. I do not flatter myself that I have done it in the plans and perspective elevation which I send you herewith.

But when fatigued by a hard day's labor, I take my seat in the front or parlor end of our one room, (A,) and while listening to, and being rested, by the prattle of the wee ones, or talking with a guest, I am under no apprehension of being disturbed by the needful opening of some door; and, looking across the cooking stove,* see my good wife busied in preparing our evening meal, with the pantry door, door to the wood-house, cellar door, and door side of the stove, all in her own end, where husband, children, and guest are out of her way—I think I have happened to make a pretty large room of 10½ feet in the clear, by 18, to say nothing of the recess, 4½ by 8 feet, where, in an emergency, we can quite conveniently place a bed, though we have two comfortable bedrooms (*a a*) up stairs, 9 by 10½, and 9 by 13 feet, with closets, where the bed-places are not against doors or windows.

Our entry (B) is only 3 feet 9 inches by 8 feet 2, but it does very well to hang overcoats and hats, and save wife and children from the cold blast of an open door in a stormy day. The pantry (C) is of the same size ; but having shelves 14 inches wide running the whole length of the right-hand side, and a broad shelf across the end to roll the doughnuts on, with its little flour and meal bins underneath, we think it very convenient. Our wood-house (D) is 12 feet square, and 8 high ; *d*, in the chamber plan, represents the roof of it. I mean, in the spring, to put in it a cistern close to the cellar wall, and cover it with rough boards, which extend over one-half the area of the wood-house, which, with the addition of a sink and pump, will make us a good summer kitchen.

Now, Messrs. Editors, when I take an outside look at our cottage, I cannot help thinking that the proportions, 16 by 19, with 12 feet posts, and its brave little rectangular roof, (it looks steeper, more gothic, in the house itself, than in the drawing ; I don't know why, the proportions are the same,) its little addition for hall and pantry of 10 feet 8 inches, by 4 feet, 10 feet posts, with its gable end, are pretty fair. And though it is built of rough, upright planks, battened, (it is battened also on the inside, and the laths nailed to the battens ;) yet, with its terraced foundation, its projecting water-table, its perfectly plain though somewhat prominent cornice, and its tessillated windows, with their rough casings, as well as the cornice battens and water-table, lime-washed a slightly lighter stone-color than the planks, the effect is to me rather pleasing. And when we get our little Chinese verandah, 4 by 4—built on the foundation for it, which you see I have marked on the ground plan—to shelter the front door, and our fruit trees shall have grown, (by-the-bye, please ask your engraver to anticipate a few of them, for I can't draw trees,) we think the *tout ensemble* will be quite an advance upon the Yankee-cheap architecture that we see every where about us. G. S. G.

REMARKS. —There is a sad lack of appropriateness and convenience, as well as of taste, beauty and true economy, in most of the dwellings occupied by the rural population of America. We vote for an entire and thorough reform in this matter, and intend to do our share to consummate an object so desirable and beneficial. As an initial step in this reformation, we commence at the foot of the ladder, by giving the preceding plan of a CHEAP COTTAGE for tenants, laborers and freeholders of small means. Such a cottage as our correspondent describes will cost from $1 50 to $2 25 — according to finish, cost of materials, (which varies in different localities,) and whether built on the cash or "dicker" system. We like the design much, and think our readers will unite with us in our admiration of its combined conveniences and attractions.

In future numbers we shall give original plans of larger and more expensive dwellings, suitable for farmers. If any of our readers have any suggestions or plans which they think will benefit the public, we shall be happy to hear from them. We desire to communicate light upon the important but sadly neglected subject of Rural Architecture.

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* The stove is placed directly under the chimney, which is built from the chamber floor.

"SCIENTIFIC AGRICULTURE"—GEOLOGY.

Last month we briefly noticed a work entitled "Scientific Agriculture," by Dr. M. M. Rodgers, recently published by E. Darrow, of this city. Since then we have given the volume a more careful examination, and find that its pages contain a large amount of valuable scientific information. It embraces the elements of Chemistry, Geology, Botany, and Meteorology, as applied to Practical Agriculture; and each subject is discussed in a brief, plain, and comprehensive manner. The work is a good one for the young, or new beginners in these sciences. The annexed extract is from the department devoted to Geology:—

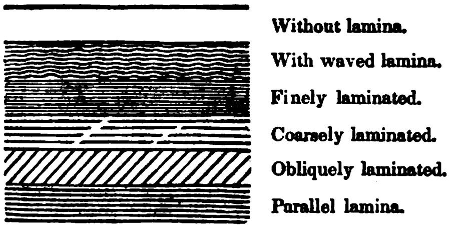
GEOLOGY.—DEFINITION OF TERMS.

Rocks are divided into two great classes, viz: *stratified* and *unstratified*.

Stratification consists of the division of a rock into regular parallel planes or leaves, varying in thickness from that of thin paper, to several yards. Strata are often tortuous and variable in thickness in different parts of the same lamina or layer; "nevertheless, the fundamental idea of stratification, is that of parallelism in the layers." "The term stratum is sometimes employed to designate the whole mass of a rock, while its parallel subdivisions are called beds, or layers." So also of sand, clay, gravel, &c.

The term *bed* is used to designate a layer or mass of rock more or less irregular, lenticular or wedge shaped, lying between the layers of another rock—such as beds of coal, gypsum or iron.

Fig. 1.

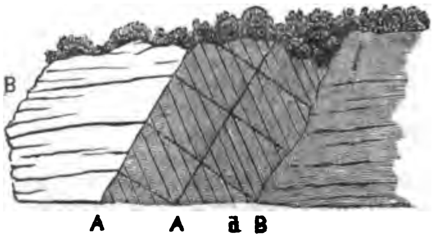


"A *seam* is a thin layer of rock that separates the beds or strata of another rock, as a seam of coal, limestone, &c."

A *joint* is a separation of rocks, both stratified and unstratified, into masses of some determinate shape: joints are more or less parallel, and usually cross the beds obliquely.

Cleavage planes are divisions in rocks, which do not coincide with those of stratification, lamination or joints. They are supposed to result from a crystaline arrangement of the particles of the rock.

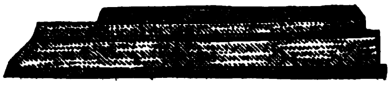
Fig. 2. *Cleavage Planes.*



[Fig. 2 exhibits the planes of stratification, B, B,—the joints A, A, A, A, and the slaty cleavage, d, d.]

Horizontal strata are those which have little or no inclination, but lie parallel with the horizon: this position, however, is rare, almost all strata being more or less inclined.

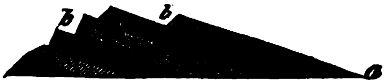
Fig. 3. *Horizontal Strata.*



The *dip* of strata signifies the angle which they form with the horizon.

Outcrop.—When strata are uncovered above the surface, or protrude from the side of a hill so as to be visible, they are said to *crop out.*

Fig. 4. *Dip and Outcrop.*



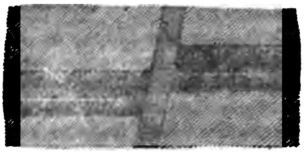
An *escarpment* is formed when strata terminate abruptly, so as to form a precipice.

A *fault* in a rock is the dislocation of strata, so that their continuity is destroyed, and a series of strata on one or both sides of the fracture are forced from their original position, and raised one above another, or moved laterally. Faults are generally filled with clay, sand and fragments of other rocks.

A *gorge* is a wide and open fissure or fault: when still wider, with sloping sides and rounded at the bottom, it is called a *valley*.

A *dyke* is a mass or wall of rock interposed between the ends of a dislocation, so as to break their continuity:—dykes rarely send off branches.

Fig. 5. *A Dyke.*



Veins are portions of rock smaller than dykes, proceeding from some large mass, and ramifying through a rock of a different kind. Metallic veins were originally melted metals, which were injected into the fissures and crevices of rocks by some subterranean force.

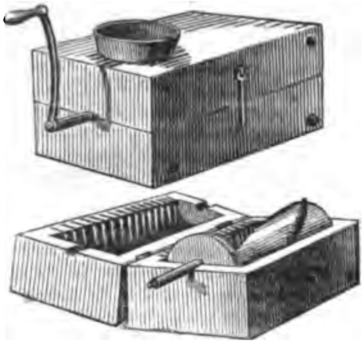
Fossil.—This term includes those petrified remains of plants and animals which are found in alluvium, or imbedded in solid rock, and constituting part of its structure.

Formations.—The term formation is used to designate a group of rocks having some character in common—either in relation to age, origin or composition. Every formation consists of several varieties of rock, all agreeing in certain qualities, and occupying such relative situations as to indicate that they were formed during the same period and under the same circumstances. Thus we speak of graywacke formation, gneiss formation, coal formation, &c.

Wheat Flies.—We collected from a bin of wheat a number of flies, on the 10th day of December, which appeared to have recently hatched out in the same. They are not the *Cecidomyia tritici*, nor the Hessian fly, nor the wheat weavil; all of which we have collected in Georgia. We know not what to call these last. Some will be sent to Dr. Fitch, of Salem, N. Y. A good deal of wheat has been sown in this State within the last two months. Seed sent us from Wheatland has come up well. *Augusta, Ga., Dec.*

NEW SAUSAGE OR MINCING MACHINE.

HAVING been furnished by Mr. H. L. EMERY, of the Albany Ag. Warehouse, with the accompanying cut and description of this neat and valuable machine, we give it to our readers in the belief that it is a great labor-saving article for farmers, pork packers, and hotel keepers. We are informed that the machine is extensively used in the eastern portion of this State, and very generally in the New England States:



New Sausage or Mincing Machine.

One machine, by the power of a man, is capable of cutting readily from 80 to 100 lbs. of meat per hour — the person turning the crank feeding the machine, thus leaving the mass cut sufficiently fine and uniform.

It is constructed of blocks of hard wood about five inches thick, nine inches wide, and fifteen inches long, connected together by hinges and hasps. The two faces of the blocks are carved or bored out so as to form a hollow cylinder or barrel extending through the length of the blocks, excepting enough at each end to form a head or cap. In this cavity is suspended a wooden cone on an iron shaft, running lengthwise, and one end of the shaft extending through and connecting with a crank outside. In this cone are placed three rows of wood or iron pegs, so arranged spirally as to form a kind of screw, running lengthwise — the pegs being smaller, shorter, and closer together as they approach the large end of the cone —making the mean diameter of the pegs the same at each end of the cone, and just filling the space or cavity. Each block has a set of triangular knives fixed stationary, and so as to allow the pegs to pass between them.

The process is simply putting in the meat at the small end of the cone, through the kind of hopper or funnel, and by turning the crank the meat is passed round, through and between the knives, and forward to the large end of the cone by the combined action of the pegs and knives, and finally discharged through an aperture in the bottom at the large end of the cone or opposite the hopper end—the fineness being guaged by the size of this discharging aperture.

The machine is warranted to cut fit for use from 80 to 150 lbs. per hour, according to the power applied — one man being sufficient to turn it constantly. Several hundred have been sold during the past two years, and given entire satisfaction. A good machine, warranted, can be afforded at from $12 to $15 — and may be obtained at Mr. EMERY's Warehouse in Albany, or at his Depot in Rochester.

THE AMERICAN LOCUST IN VIRGINIA.

BY YARDLEY TAYLOR.

IN the 6th month number of the Genesee Farmer is a communication by DAVID THOMAS, written it seems in 1831 and republished in 1848, asking for information from other sections of the country respecting the American Locust as it is called, or the *Cicada Septendecem* of Linnæs; and concluding with several queries to which answers are requested.

To several of these queries I have no answer to give, but to this one, "What has caused the locusts in one district to differ in regard to time from those of another district?" I reply, that I have no evidence that they do so differ. There may be in other places, as there is here, two sets of them, but they regularly observe the period of 17 years in their appearance. These two sets have different boundaries for their districts, and consequently overlap each other, and such circumstances as these may lead the casual observer to suppose there is an irregularity in their appearance, when there is not.

By noticing the public papers we hear of the locusts being numerous in some sections of our widely extended country almost every year. In this county, (Loudon, Va.,) they have appeared in regular intervals of 8 and 9 years for upwards of 50 years. It is said that they have appeared here in 1792, in 1800 and in 1809. Since then I recollect them myself, to wit: in 1817, in 1826, in 1834, and 1843, and we look for them again in 1851. In 1826 and 1843 they extended to the north, east and south of this county for a great distance, but did not extend but very little to the west of the Blue Ridge, which bounds this county on that side. In Frederick county, Va., there were no locusts those years, though only 30 miles west of this, while in 1817 and 1834 they were numerous in that county, and at the same time extended to the north and east and south of this place as well as to the west. They were more numerous in the latter than in the former years. Whether these boundaries in other directions are the same, I do not know.

If I remember right Dr. GIDEON B. SMITH, of Baltimore, is collecting materials for a map of the United States, showing the different districts of the locust as they appear in different years. Such a map, with the history of this singular insect, would be interesting. The great length of time they remain in the ground renders it very difficult to ascertain their history exactly, yet their appearing in the immediate vicinity where their eggs were deposited, shews conclusively that they do not travel far in a lateral direction. And they sometimes appear in situations where we might reasonably conclude they could not descend into the earth many feet without coming in contact with water at all seasons. What their food is in this long interval it is difficult to say. I have never seen any injury to the roots of plants done by them, and seldom ever see them except a short time previous to their appearance. There are a few solitary ones to be met with every year, and I see no good reason to suppose them a different species, as has been intimated. *Loudon Co., Va., 11th month,* 1848.

* * *

PLANTS that are grown too fast cannot be handsome. The more rapid the growth, the further apart are the leaves, the longer the bare part of the stems. Flowering plants are better grown too slow than too fast.

Spirit of the Agricultural Press.

In each number of this volume we design to give a page or two under the above heading. It will be our aim to condense and extract from our exchanges in such a manner as to convey, in a small space, much valuable information—thus giving a collection of items that may be appropriately termed the *Spirit of the Agricultural Press.*

Rotary Mould Board Plow.—The Scientific American says, that at the late Fair the most novel agricultural implement was a Revolving Mould Board Plow, the invention of Mr. Page, of Baltimore. The mould was a circular concave shield revolving from the point with the sod of earth. This mould board was movable, and could be taken off and put on at pleasure. Whether its complexity will prevent its general introduction or not, remains yet to be seen. Its principle is the combination of a revolving apron to move with the earth, and perform the same office as a friction wheel in a shaft box.

Side-Hill Plowing.—Plows are now made to go forth and back in the same line, and to turn all the furrows down hill. This is convenient when the land lies in such a position that one side of the hill is inaccessible. When one side only can be plowed, the side-hill plow turns the whole in one direction, and no lands are marked off. Some farmers object to turning the furrows all down hill, because they would not expose the high parts to barrenness or dead furrows. But plowing furrows up-hill is decidedly up-hill work, and should be avoided if possible. When we have a circular piece of land, rising in the middle to a peak or a knoll, we begin to plow at the base and make the dead furrow on the ridge. It is so much easier turning furrows down-hill than up-hill, that we prefer to cart a larger share of manure on to the peak, and make up the loss.—*Mass. Ploughman.*

Advice in Poultry Keeping.—The principles upon which I rely for success in keeping hens, are, first, to have two breeds—a few to hatch and rear the chickens, and twice the number of everlasting layers. as eggs are more profitable than chickens; second, to get a hatch as early as possible in spring, and to keep them well; these never cast their feathers like the old birds, and if they begin to lay in autumn, lay more or less all winter; third, never to keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not nearly so many; fourth, to give them the best barley I could get, and as much as they could pick up, once a day in summer, and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the pheasant breed for laying.—*Agricultural Gazette.*

The best Breed of Sheep.—Let it be assumed that the best breed of sheep is that which produces the greatest net profit in money from a given quantity of food.—*Ib.*

Westphalia Plan of Smoking Hams.—A room in a garret; fire in the cellar; smoke gathered in a tunnel, and led to the smoke rooms by a small pipe; by the time it gets there all the heaviest part of the pyroligneous acid has condensed, and the smoke has become cool. Nothing touches the hams but a pure, light, cool smoke, which is allowed to pass off by a number of small apertures, about as fast as it is supplied.

Wire Worm.—A successful farmer in this vicinity, Mr. D. D. T. Moore, states that he has tried various substances for preventing the ravages of the wire worm, none of which, excepting sulphur, proved of any use. An Irishman told him that sulphur had been used with advantage in Ireland. Before planting his corn, Mr. M. wet it and rolled it in flour of sulphur, and afterwards coated it in plaster to prevent the sulphur from wasting. He saved a crop by this means, where he had failed for three years before. We see no reason why the sulphur might not be equally effective for any other grain.—*Cultivator.*

One-Horse Carts.—A great improvement has been made in attaching the horse to the cart, to prevent the sudden descent of the weight of the load upon the animal's back, after mounting obstructions. A half elliptic spring is fastened under each shaft, the centre of which is connected to the lower ends of the staple, which passes freely through a hole bored in the shaft, and connects with a chain that passes over the back of the horse.—*Ib.*

The Crops of 1848.—We invite attention to a valuable table which we give below. It has been compiled by the editor of the New Orleans Commercial Times, and is accurate as anything of the kind can be made under existing circumstances. Under the head of crops, thirteen different articles are included, on each of which the value has been adjusted to the several States, with the necessary advance on the same items, as they were reported in 1840; thus affording the approximate value of the crop of 1848, together with the sums invested in manufactures and merchandise, respectively. In making up the "crops," prices have been assumed as follows:—Cotton, at 6 cents per pound; sugar, 4; rice, 3; tobacco, 7; wheat, 60 cents per bushel; corn, 30; barley, 30; oats, 25; rye, 40; buckwheat, 50; and potatoes 30 cents; hay, $10, and hemp and flax, $50 per ton. These are the home prices before transportation to market, and apply to the first column of the following table:

Estimated value of the crops of 1848, and the sums invested in manufactures and merchandise in each State.

	Crops.	*Manufactures.*	*Merchandise.*
Maine	$13.000.000	$10,000.000	$5.000.000
New Hampshire	9,000,000	12,000.000	3 000.000
Massachusetts	11,000,000	52,000.000	16.000.000
Rhode Island	1,500.000	13,000.000	4.000,000
Connecticut	9 000,000	17,000,000	8.000,000
Vermont	15.000,000	5,000,000	4.000.000
New York	79,000.000	60.000,000	58.000.000
New Jersey	11.000,000	14.000.000	5.000.000
Pennsylvania	55,000,000	50,000,000	45,000,000
Delaware	1,800,000	2,000,000	1,300 000
Maryland	10.000,000	8,000,000	13.000 000
Virginia	38,000,000	13,000,000	21.000.000
North Carolina	19.000.000	5,000 000	6.000.000
South Carolina	14.000,000	4,000,000	10,000,000
Georgia	21.000,000	4,000,000	11,000.000
Alabama	17.000.000	3,000,000	8.000.000
Mississippi	14,000,000	2,000.000	7,000,000
Louisiana	19,000,000	8.000.000	20.000.000
Tennessee	40.000,000	5,000,000	9.000,000
Kentucky	28,000,000	7,000.000	11.000.000
Ohio	49.000,000	20.000,000	27.000.000
Indiana	47,000.000	5.000,000	7,000.000
Illinois	18.000,000	4,000,000	6,000,000
Missouri	12,000,000	4,000,000	10.000.000
Arkansas	6,000.000	1,000,000	2,000,000
Michigan	7,000,000	4,000,000	3,000.000
Florida	3,000.000	1.000,000	2,000,000
Wisconsin	2.000.000	8,000,000	1,000.000
Iowa	2,000,000	3,000,000	1,000,000
Texas			
District of Columbia	100,000	1,200,000	3,000,000
Total	$591,400,000	$343.300,000	$322,000,000

From the above estimate it will be seen that nearly $600,000,000 in value will be derived this year from the cultivation of the soil, besides what may proceed from gardens, orchards, dairies, &c., amounting at least to $50,000,000 more. These productions are increased with every harvest, as new parts of the country are settled, and additional labor is employed to the ratio of population.

Agricultural Schools in France.—At a recent session of the National Assembly of France, the principal part of the day was devoted to the bill relative to agricultural schools. It was resolved that one of these institutions should be founded and maintained in each department at the public expense; and further, that the country should be divided into agricultural districts, not exceeding twenty, in each of which a government school is to be established.—*Foreign paper.*

Poudrette Companies in France.—It is stated that there are twenty-two companies in France busily engaged in converting the refuse of towns into inodorous poudrette. The disinfectant generally employed is said to be the chloride of iron.—*Ib.*

How to Kill Chickens.—The best method of killing fowls is to cut their heads off at a single blow with a sharp axe, and then hang them up and allow them to bleed freely. By this process, they never know what hurts them, or endure pain for a second. Wringing the necks of poultry is almost as shocking as nailing their feet to planks; for the purpose of fattening them, and follows in the same barbarous category.—*American Agriculturist.*

Fecundity of Hens.—A young hen will lay the first year about 150 eggs; the second 120; the third 100—diminishing every year as she grows older; and, says the Maine Farmer, she should "go to pot" after the fourth.

Experiments, without noting the actual circumstances connected therewith, avail but little.

Editor's Table.

COMMUNICATIONS have been received, since our last issue, from Agricola, T. C. Peters, Myron Adams, G. S. G., F. W. Lay, *, Yardley Taylor, H. L. Emery, Richard I. Hand, John Williams, S. W., West, Samuel Spaulding, G. E., Erie, H., John Moxon, Wm. W. Deak, Kentuckian, Judson, and Dairyman.

SEVERAL communications, inquiries, &c. came to hand too late for insertion or answers. They will receive proper attention next month. Notices of a number of books, &c. also deferred till our next issue.

OUR NEW DRESS.—As we promised, this number of the Farmer is printed on "NEW and CLEAR type," with such other improvements as we think will meet the approbation of its readers. It will be observed that the type is smaller than that of our previous volume, (though quite as bold and distinct,) and we consequently give a greater amount of reading on the same number of pages. In selecting we had in view the wise remark of a modern genius who *reckoned* "that society was like a barrel of pork — the middle pieces being better than either top or bottom;" and if what we *print upon it* shall enable our friends to replenish their pork and other barrels more advantageously than heretofore, we trust they will acknowledge the benefit derived from type, ink and paper — yclept "book knowledge." We will add here, for the benefit of those interested, that our beautiful dress is from the Foundry of Mr. N. LYMAN, of Buffalo. Mr. L. is a very upright dealer, and his establishment is deservedly popular among the members of the "art preservative."

WE this month have the pleasuse of introducing several new contributors to our readers. They are practical, observing and thinking men, who "know whereof they speak," and we give them a cordial welcome. We also invite others to communicate such facts, suggestions and items as may appropriately appear in this journal. Give us the *substance* — the facts, briefly and definitely — and we will attend to the minor points of style, grammar, &c.

THE MEMOIR of Hon. ZADOCK PRATT, which we give in preceding pages, (accompanied with a life-like steel plate Portrait,) will very properly attract the attention of our readers — and prove particularly interesting to the admirers of men who have, by their own indomintable energy and perseverance, risen from humble origin to highly honorable and eminent stations. We especially commend the Memoir to the comparatively poor but right-minded Young Men of America, as it presents an example eminently worthy of imitation.

This is the first of a series of Sketches of Distinguished Friends of Improvement which we propose giving in the pages of this journal — a feature which we doubt not will receive the hearty concurrence of our readers.

"NEW ENGLAND FARMER" is the honored title of a neat semi-monthly of 16 octavo pages, which has just reached our table. It is edited by S. W. COLE, Esq., late of the Boston Cultivator. The number before us is well filled, and we see no good reason why the work should not succeed. We extend the "right hand of fellowship," to brother COLE, and wish him prosperity in this new enterprise. Published by J. NOURSE, Boston, Mass., at $1 per annum.

HOLDEN'S DOLLAR MAGAZINE for January is a superior number of a deservedly popular work. The proprietor is proving to the literary public, what we are to the agricultural, viz: that the *cheapest* publications may be made the most *profitable* to their readers, and most useful to community. The number before us contains a Biography and truthful Portrait of Rev. CHESTER DEWEY, M. D., D. D., of this city, (an occasional contributor to the Farmer over the signature of C. D.) It also contains Sketches and Portraits of HORACE GREELEY, Dr. TURNER, and LOUIS BLANC, and is otherwise well filled with choice reading and illustrations. Published by C. W. HOLDEN, 109 Nassau-st., New York.

BUFFALO AG. WAREHOUSE AND SEED STORE. — Many of our readers will no doubt be pleased to learn that T. C. PETERS, Esq. has opened an Agricultural Warehouse and Seed Store, in connection with his Wool Depot, at Buffalo. We commend this new enterprise to the attention of our western readers, as well as to those residing in the vicinity of its location. See advertisement.

ENTITLED TO THANKS.—Col. B. P. JOHNSON, who has served as Secretary of the N. Y. State Ag. Society during the past two years, is entitled to the thanks of its members and the agricultural public generally, for his judicious efforts to promote the interests and augment the usefulness of that valuable Institution. The duties of his office have been performed with ability and promptness, and in a manner highly creditable to himself and the Society. We have heard frequent remarks relative to Col. J.'s admirable management, not only in the Agricultural Rooms, but at the State Fairs, where the exercise of much firmness and energy, as well as patience and suavity, were requisite. His addresses at various County Shows have also been very acceptable, and exerted great influence in behalf of Rural Improvement. It is rarely that any similar association can secure the services of so faithful an officer, and we are confident that we represent the wishes of many members and friends of the Society, when we express the opinion that he should receive a unanimous re-election, providing he will accept the same.

"NOTES FOR THE MONTH," by S. W. of Seneca county, were received too late for insertion in this number. We add a couple of them, however, as follows :—

WHEAT, Indian Corn, Barley, Oats, Buckwheat and Hay, have been good crops this season, the two first unusually large. The introduction of Indian Corn into the United Kingdom of Great Britain under the present low duty there, has not only given this cereal an increased value as a farm crop, but it has also added very much to our shipping trade on the lakes, canals and on the ocean. The receipt of corn at the port of Buffalo alone the past season, has frequently exceeded 60,000 bushels in a single day. The quantity exported direct from New Orleans, and that received coastwise and shipped from New York to the West Indies, to Nova Scotia, Newfoundland, and to Great Britain, now amount to millions of bushels annually.

BEEF AND PORK. — Our farmers feel that they cannot compete with the farmers of the far west in the market for Pork. 2200 slaughtered hogs, averaging 250 lbs. each, have been forwarded to New York, by railroad and river, from one distillery here; farmer's pork is all taken for home consumption. Beef has been high through the whole year. Butter and Cheese have sold at good prices giving unusual pecuniary prosperity to the dairy counties of the State.

VALUABLE BOOKS.—The Publisher of the Farmer has a variety of standard works on Agriculture, Horticulture, &c., which he will supply to his distant patrons, by mail, at the regular New York cash prices. Money may be sent *at his risk*, if enclosed and mailed in the presence of the Postmaster of the office from which it is sent. Those who cannot obtain such works at home, are requested to favor him with their orders, as it will make good, in part, the *very small* profit derived from the Farmer. It is also safest to transmit orders to a well known publisher, who will be prompt in his attention. Books can be forwarded with perfect safety to any section of the country. See list of works and prices on advertising page.

CREDIT. — We notice that many of our exchanges copy extensively from the Farmer, without giving *credit*. If this course is continued we shall be obliged, as a matter of protection and self-defence to copyright the Farmer or discontinue sending to the journals that republish our articles as original. We have no objection to our friends copying any thing we publish, *providing proper credit is given* — but we do object to the unjust system, adopted by several of our exchanges, of appropriating our labors to their own benefit, without the least acknowledgment.

COLMAN'S EUROPEAN AGRICULTURE. — The two concluding numbers of this work have been handed us by Mr. J. H. WATTS, agent in this city — but at too late an hour for particular notice in this number.

OUR present number is necessarily incomplete in some respects, in consequence of the time required to change from old to new type, and the haste with which we are compelled to have it stereotyped and put to press. We however think it will compare favorably with its cotemporaries, and do not consider any apology necessary — though our intentions are not fully realized. And we trust that the friends of the work will not "forget to remember" that the best way to promote its usefulness is to SHOW THE PAPER TO THEIR ACQUAINTANCES and solicit their subscriptions. How many of our readers will lend a portion of their influence to promote the cause in the manner suggested?

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

The Editor of this Department is now absent on a Horticultural Tour in Europe. This will be a sufficient explanation, we trust, should any deficiency be apparent in the manner or matter of these pages. We expect some interesting correspondence from him, for publication in the February number.

POMOLOGICAL REFORM.

We have received an article on this subject, written by "*Erie*," but owing to its length we are obliged to defer it for the February or March number. The author has been one of the foremost in "Pomological Reform" in Western New York. We shall be happy to hear from him in the manner suggested in his private note.

The article before us is, we bel[illegible] written for the benefit of the many. The following is its conclusion — to which we doubt not every true son of the "Empire State" will subscribe: —

"We sincerely hope and trust the lovers of fine fruits, the amateur, and the honest, (and I would by no means infer there are but few) nurserymen — the farmer, and all who love rural works, and rural labors — will c[illegible]p to the work with heart in hand, and with a hearty desire to promote the good that can in this wise be accomplished. Let us of the State of New [illegible]k, at least, honor and sustain our noble institution, the New York State Agricultural Society, whose labors and benificence is doing more to elevate, to ennoble and enrich the tillers of the soil, than does perhaps any other inst[illegible]ion existant among us."

A WORD ABOUT GARDENING.

No one can be truly said to LIVE who has not a GARDEN. None but those who have enjoyed it can appreciate the satisfaction — the luxury — of sitting down to a table spread with the fruit of one's own planting and culture. A bunch of radishes—a few heads of lettuce — taken from the garden of a summer's morning for breakfast; or a mess of green peas or sweet corn, is quite a different affair from the same articles brought in large quantities from market in a *dying condition*, to be put away in the cellar for use. And a plate of strawberries or raspberries lose none of their peculiar flavor by passing directly from the *border* to the *cream* without being jolted about in baskets until they have lost all form and comeliness. And yet, how many in the smaller cities and villages of our country, possessing every facility for a good garden, either through indolence or ignorance are deprived of this source of comfort? And how many farmers, with enough land lying waste to furnish them with most of the luxuries of life, are content to plod on in the even tenor of their way, never raising their tastes above the "*pork and beans*" of their fathers.

It shall be our business in VOLUME TEN of the Farmer to remove as far as possible these causes, and to show not only that health, happiness and good living are the legitimate products of well cultivated gardens — but to give all who read its pages such information as the season may require—so that he who has no garden, or one of which he has reason to be ashamed, shall not be able to present, as an excuse, his lack of knowledge.

ORNAMENTAL FLOWER STANDS.

Those who admire flowers in the hall or in the drawing room, should always provide such stands as will enable them to keep the pots without pans, for the water in a pan is ruin to all plants standing in them, and this can easily be proved by reference to the thousands and tens of thousands that are killed daily, in all the manufacturing towns and populous cities in the empire. They are watered by filling the pans. This water is soon mischievous, because the roots are easily rotted by stagnant moisture. The stands for flower pots should therefore be provided with a receptacle for the superabundant moisture, for it is impossible to prevent water from running through the pots.—This receptacle may be a groove round the outside, or near the outside of the solid bottom, forming a gutter into which the surplus moisture might run, and from which it is easily taken up by a sponge. The bottom must of course slope towards the outside, or have grooves or gutters leading from the center to the outside. This does away with the necessity of using pans, and the danger of injuring the plants by stagnant water.

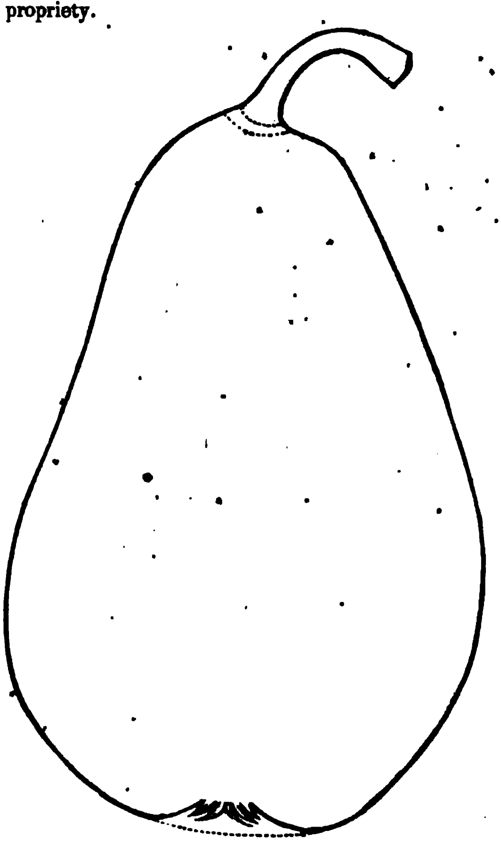
With regard to the form of these stands, they may be various, according to the places they are to occupy, and the number of plants which they are to accommodate. There is good room to exercise a little taste upon the subject. When the stand is for a single pot, there must be a sort of cup for it to stand over; not to stand in, so as to touch the water, because that would be as bad as a pan. These stands require to be emptied occasionally, because every time the plants are watered, some would go into the gutters, which, if not attended to, would overflow. These stands are made variously of iron or wicker, as the case may be, and may be had of almost any form, in wood of the rustic seat makers and verandah builders, and in iron from the general wire-workers. Some are cast, but, rich as they look, they are not adapted to move up and down or about a house.—*London Horticultural Magazine.*

We saw at the Fair of the American Institute a great variety of very pretty rustic stands, but we are not aware that any of them were constructed with a receptacle for the superabundant moisture that necessarily flows from the pots. This, it will at once appear to any one, is a great improvement on the usual mode, and we recommend it to the attention of the ladies who are especially interested in the management of *house* plants, and who are the best judges of matters of taste and ornament.—ED.

LE CURE PEAR.

VICAR OF WINKFIELD.—*Fruit and Fruit Trees of America.*
CLION.—*Kenrick's American Orchardist.*

THIS is a French variety, supposed by many to be identical with the the old *St. Lezin.* The London Horticultural Society named it *Vicar of Winkfield,* from its having first produced fruit in the Vicar's Garden. Mr. HOVEY, in his "Fruits of America," adopts the name LE CLURE, and we believe with propriety.



Le Cure Pear.

It has acquired a very high reputation among the best pear growers of this country, on account of its vigorous growth, rich luxuriant foliage, extraordinary productiveness, large size and beauty of the fruit, as well as its excellence both for the kitchen and table. Col. WILDER, of Boston, who is known as one of the most eminent pomologists and pear cultivators in this country, has said that if he were to cultivate but one variety it should be this. He says: "It never fails to produce a good crop—never blows from the tree—may be used for cooking in August, and will ripen in a warm room in October, and will keep till February." SAMUEL WALKER, Esq., of Boston, now President of the Mass. Hort. Society, stated at the New York Convention, that in the city of Boston they were sold at $1,50 per box of one dozen fruits, and the purchasers, at that, always thought they had the best of the bargain.

For some time after the introduction of this pear, and until of late, when its many good qualities have become better understood, it was much under-rated, being considered only as a "baking pear." We think it is destined to occupy a place among the smallest collections. We have a specimen before us now, ripened in the desk of our office, that is buttery, melting and really delicious, though only second rate compared with White Doyenne, Seckel, and some others.

Fruit large, often six inches long and three in diameter. The specimen from which our outline was taken is rather below medium. Form, oblong, pyryform, occasionally one-sided. Skin, smooth and fair; pale yellow, with a blush on the sunny side, and sprinkled all over with distinct brown specks. Stalk an inch to an inch and a half long, usually curved, with flesh at the base. Calyx, large, open, in a very shallow basin. Flesh white, juicy, melting, and often, as in the case before us, buttery. Flavor, sprightly, sweet and agreeable. May be ripened in October and kept till February. It succeeds admirably on the quince, and does well also on the pear.

SWAN'S ORANGE OR ONONDAGA PEAR ON QUINCE.

BY JOHN WILLIAMS.

P. BARRY, Esq.—I received from your firm, in the spring of 1847, a few trees of the Onondaga Pear on quince roots. You then gave me the assurance that it did well on the quince. My subsequent experience fully confirms what you then said. Having grown it the present season on quince in parallel rows with the Colmar, D'Aremberg, and Langleur Beurre, (both of which are free growers,) the Onondaga has done as well as either and given a rich healthy foliage.

As I see there are doubts expressed as to the adaptation of this pear to the quince, I thought it due to you to say this much. *[illegible]mouth, Ms., Sept.* 1848.

JAS. E. REED, of Dalton, Ohio, makes a similar statement in a late number of the Horticulturist. Indeed there is not a doubt but this pear will prove to succeed well on the quince.—ED.

PROFITS OF FRUIT.—NORTHERN SPY APPLE.

BY RICHARD I. HAND.

MR. BARRY;—Below I give you a statement of the products of one acre of land on which I have grown the Northern Spy and Roxbury Russet apples during the year 1848:—

110	barrels Northern Spy, sold at	$2,50,	$275,00
10	" " "	3,50,	35,00
30	" " " 2d quality	1,00,	30,00
100	" Roxbury Russet,	1,00,	100,00
			$440,00

I sold the Spys mostly to J. H. WATTS, at Rochester. If any of the Monroe county farmers have a better story to tell, let's have it. They were grown on twenty-three trees. *Mendon, N. Y., Dec.,* 1848.

HOT-HOUSES, green-houses, pits, and other horticultural buildings for supplying a warmer atmosphere than the open air, should always be cooler at night than in the daytime. It is too frequently managed to have the reverse; the fires are made up in the evening, and the plants are forced more in the dark than in daylight.

THE twigs of fruit trees intended for grafting are sometimes obtained long before they can be used. Put the lower half of them into the ground, and they will keep for weeks as well as if they grew on the tree.

TRANSPLANTING PEACH TREES.

BY A. HUIDEKOPER.

Mr. Editor :—Observing in the April number of the Farmer a notice of winter-killed peach trees, has induced me to offer a few remarks, suggesting whether the rule laid down in all our manuals, of transplanting peach trees early in the fall, or *very early* in the spring, is the correct one. I have transplanted peach trees in the autumn when the foliage was but partly divested by the frost, and have had them suffer more than those set out after the leaves had entirely fallen from the tree. So the rule of transplanting them *very early* in the spring may do along a lake shore or in a region where "one swallow makes a summer," but in a country where severe spring frosts are of frequent occurrence I think it questionable.

I have transplanted, for experiment, peach trees in February with a bulb of frozen earth attached to the roots, and have also removed them in March and in April, and the last did decidedly the best. In the fall of 1846 I received some trees from **Ellwanger & Barry** as late as the 1st of December—having been delayed on the way. Three days after they were planted it froze very hard, and yet on uncovering the trees the following spring I found them to be entirely uninjured, and I would suggest the method I pursued as being as good to make trees hybernate well as to plant them very early.

At the time of planting, finely pulverised material should be used, with two or three buckets full of water to make every thing right about the roots. A mound of coarse strawy litter from the stable, eight or ten inches high, should be placed around the base of the tree, and left there till the following April. A stake should be driven firmly along side of the tree, the branches brought up in a compact form, and then a *light* coating of long rye straw placed around the tree, beginning below and letting the next course overlap the first. A little wrapping thread around it will keep every thing in order. At the top the straw should be brought to a point and tied to the stake. A slight envelope of straw in this way will protect a tree from the sleet and winds, and sudden changes of temperature in the winter, and in the following April the limbs will be found as fresh and green as when the tree was first removed.

If trees are transplanted in the spring as late as practicable before the starting of the buds, and are well watered and mulched with litter as above, at the time of setting them out, they will suffer less danger, I apprehend, from summer drouth than they will from spring frosts by being transplanted early. The additional trouble of treating peach trees as above is but trifling compared with the loss of time and labor in losing them for several years under the ordinary method. *Meadville, Pa., April,* 1848.

The above article was mislaid soon after its receipt, or it would have been published at an earlier period. If the writer will favor us again, his papers shall receive due attention—and himself our thanks.

* * *

A **Lilac** is best as a standard, because all the heads will bloom, whereas all of a bush does not; besides, you can keep down the suckers which spoil all neglected lilac bushes.

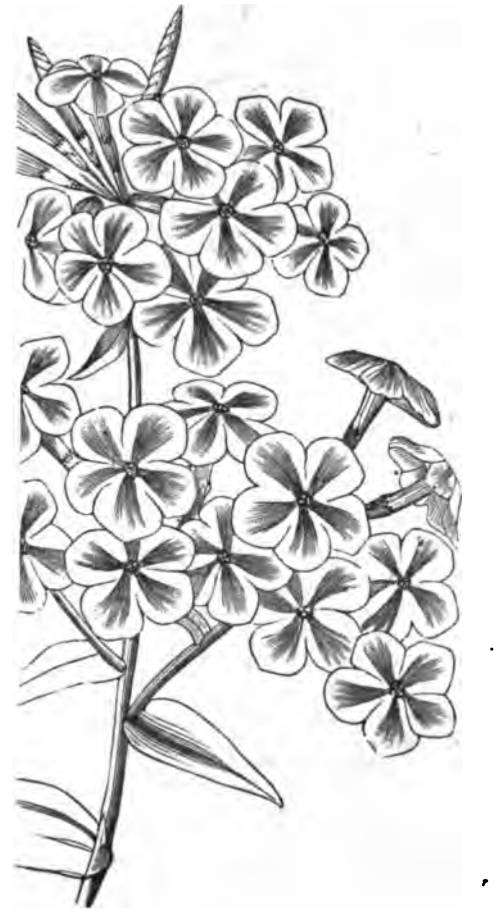
* * *

Seeds always keep better in their pods than threshed out, and for private use should always be so kept, if the nature of the pods will allow of it.

DESCRIPTION OF 25 NEW VARIETIES OF PHLOXES.

Mr. Barry :—I have heard so much about new **Phloxes** that I am really anxious to get some information respecting the best varieties. Will you have the goodness to describe one or two dozen of the finest kinds in the Genesee Farmer? Floriculture should not be neglected, when Pomology is making such rapid progress. By complying with the above you will oblige **West.**

Cincinnatti, O., Dec., 1848.



Phlox Van Houttii.

The Editor to whom the above is addressed, and who would answer the inquiries to a charm, is now in Europe on a Horticultural Mission. We will not tax W's patience to wait for his return, but give what little light we have on the subject. Too much praise cannot be given to these charming plants—when we take into consideration the variety of colors, the long time of flowering, and their easy cultivation. They will certainly become the most popular hardy border plants.

The above cut, which we consider a good representation, is from the Horticulturist. Want of space will not permit us to give full descriptions. It was our intention to give an engraving of *Reine Louise*, (which we consider superior to Van Houttii,) as well as some others in the annexed list of more recent introduction, but our artist was absent when the flowers were in perfection.

The annexed list contains all the newest and best Belgian varieties, which we doubt not will soon find their way into every good collection in the country. Planted in a lawn, in clumps or rock-work, they produce a beautiful effect, particularly when a large number of plants of one color can be planted in a mass. They are all perfectly hardy, originating from American stock:—

Arsina—White, with delicate purple tinge, and dark eye.
Alba Glumerata—Pure white; very fine.
Anais Chauveri—Pure white, with deep pink eye; large and superb.
Blanche de Neully—Beautiful white.
Cardidissima Nova—Pure white, very large heads of flowers; a superb variety.
Delecta—Showy purple, with dark eye.
Cromwell—Lilac, with purple stripe; a very striking variety.
Fleur d'marie—Pure white, with showy pink center; very fine.
Goethe—White, striped and dashed with lilac.
Herman Kezel—White, with distinct eye.
Invincible—Rose shaded, striped with pink.
Lilacina Grandiflora—Blush striped and dashed with lilac.
Marianne—Pink eyed, with white; fine.
Mazeppa—Pink, with dark eye; very striking.
Macrantha Speciosa—Pink, striped with white; large and fine.
Nymphea Alba—Pure white, immense heads of bloom; fine.
Oiel de Lynx—White, with bright pink eye; superb.
Pottsi—White, tinged delicately with flesh.
Picta—White, with purple eye; distinct and very fine.
Rosea Superba—Delicate beautiful rose; distinct.
Rippo—Pink, with deep stripes and large dark eye; very fine.
Reine Louise—Pure white, flaked with rosy pink like a carnation; superb.
Standard of Perfection—White, tinged and striped with bluish purple, fine pyramidal heads of flowers; one of the very finest.
Tricolor—White, pink and purple striped.
Van Houttii—Striped, purple, white and crimson; superb.

There are several other fine varieties which we will describe in a future number. G. E.

PRACTICAL HINTS TO AMATEURS.

BY "AN OLD DIGGER."

You may transplant, all winter, when the ground is not frozen—only take care not to expose the roots to frost while not covered with soil. In winter-planting, it is best to pile up a mound of earth 6 or 8 inches around the trunk of the tree. This keeps it steady, and protects it, partially, against severe frost.

When a tree brought from a distance has been a long while out of the ground, and looks quite dried up, don't plunge it into a tub of water; that would be well-nigh as fatal as giving a gallon at a single drink, to a man nearly dead of thirst. *Moisten* the roots, and after shortening the branches severely, bury the *whole tree* in the ground for three or four days.

When you prune a small branch of a tree, always see that a *bud* is left opposite the cut; this will help it to heal over quickly: and you will assist the matter still more, by making the cut always a *sloping* one.

Don't let insects of various kinds overrun your orchard or garden, and then lazily fold your arms and say, "it's no use, this trying to raise things, now that so many vermin are about." Spend three days, industriously, in the early stage of the matter, in putting down the rascals, and then look around you and see if a little industry is not better than grumbling.

If you want early vegetables, set yourself, in winter, about making some boxes to protect them. A few cheap boxes, a foot square, with a pane of glass in the top, to put over tender things at night, will cost you but a trifle, and will give you ten days start of the open ground.

To have good currants, gooseberries, or raspberries, the old plants should be dug up at the end of three or four good crops, and their places supplied by young ones. If you plant a few cuttings of the two former, as you should do, every spring, you will always have a supply of fresh plants ready at all times: always cut out all the eyes (buds) of a cutting, on that part which goes in the ground—otherwise you will be troubled by their coming up, year after year, in the form of *suckers*.

If you have a tree that grows "apace," but won't bear, dig a trench round it, and cut off a third of the roots. This will check its growth, and set it about making fruit-buds.

Never buy fruit trees in the "market-places," of unknown venders, who have no character to lose. You cannot tell by "examining the article," whether they cheat you or not; and you get your tree at half price, only to wish, when it comes to bear, that you had gone to an honest dealer and paid ten times as much, for something worth planting. "Hog-Peach" trees are dearer at a penny, than "George the Fourths" at a dollar.

If you don't love flowers yourself, don't quarrel with those who do. It is a defect in your nature which you ought to be sorry for, rather than abuse those who are more gifted. Of what possible "*use*" is the *rain-bow*, we should like to know? And yet a wiser than you did not think the earth complete without it.

Do not grudge the cost and labor necessary to plant a few of the best shade-trees round your house; and if you have any doubts about what to plant, stick in an elm. There are few trees in the world finer than a fine sweeping elm; and two or three of them will give even a common looking dwelling a look of dignity. If you plant fruit trees, for shade, they are likely to be broken to pieces for the fruit, and they grow unsightly by the time that forest trees grow spreading and umbrageous.

There are very few men whose friends build so fair a monument to their memory as they can raise with their own hands, by planting an elm or maple where it can grow for a century, to be an ornament to the country.—*Horticulturist.*

GRAPE CULTURE IN MISSOURI.—Farms in the neighborhood of Hermann, Missouri, have risen very much of late, in consequence of the increased cultivation of the vine. A Mr. POESCHEL, who has a vineyard of not quite one acre, which was planted with Catawba grape in the spring of 1845, made from it this year one thousand gallons of wine, and the value of the whole produce of the vineyard was seventeen hundred dollars.

THE forcing of plants into flower early by heat should be managed carefully; begin cool, and gradually increase it week after week until it will bear the stove. Too sudden a change of temperature destroys the beauty and sometimes the plant.

ALWAYS clip hedges, to keep them down, and make them grow close. If you neglect this, they grow open and naked at the bottom, and keep off the air, and sometimes the sun, by their overgrown tops.

CULTURE OF HALF HARDY TREES AND SHRUBS.

SOME young trees and shrubs suffer much in winter before the wood becomes hardened and well matured. For a long period I have seen the American Spindle tree regularly killed down; and for several years the Chinese Honeysuckle shared the same fate; but the same shrubs now appear perfectly hardy. When newly introduced, such plants generally receive more attention than in after time. They are stimulated by high culture to grow late in the season; and abounding in juice, suffer in proportion from the cold. Dry substances never freeze. The seeds of melons and cucumbers endure the greatest severity of our climate; but the plants that spring from them are destroyed by the first touch of frost. Neither oaks nor maples would abide our winters, if they continued their growth into autumn. Half-hardy shrubs should, therefore, be planted in soils not too rich, and their growth should be stopped in summer if possible.

Have we a better guide than Nature? Her seedlings generally rise among other plants, where they are protected from the scorching sun, from untimely frosts, and from being thrown out in winter. Many a plant which we foster in the green-house, would do well in the thick shades of our forests, where the branches above them would lessen the radiation of heat, and shield them from freezing winds. But hot sunshine may be as destructive as a cold night. The difference between the climate of the woods and the climate of the open border, is very great; and it may explain why many of our native plants refuse to inhabit our gardens. For instance, who has succeeded with the *Gerardias* in open sunshine? Or with *Cypripedium acaule?* I have known the last, however, to bloom for several successive seasons, in the *twilight* of a broken flower pot, open on the north side.

Some shrubs suffer much from exposure to cold winds. In the open ground, the white Antwerp raspberry, has been much injured—while ten rods under the lee of red cedars, it has done well. The common laburnum may illustrate the same doctrine. One which stood in a door-yard, exposed to the west winds, was damaged every winter, until a building was erected very near it, so as completely to shelter it on that side, and from that time, during seven years, it has not been injured.—*D. Thomas' Address.*

* * *

AMERICAN ALMONDS.—We are indebted to Mrs. William A. Banker for a sample of almonds raised in her own garden. They are of extraordinary size, and fine flavor. This, and other experiments, prove that our climate is not unfavorable to the growth of many plants and fruits for which we are in the habit of looking abroad.—*Winchester (Va.) Republican.*

There is little doubt that the cultivation of almonds can be rendered profitable in Georgia and other Southern States. The growing of fruits of this kind would greatly tend to increase their consumption, benefit small landholders, and, by so much, check the over-production of cotton. If one has seeds that will germinate, now is a favorable season to plant them.—*Augusta Chronicle.*

* * *

LIQUID MANURE—*Grapes.*—The Ohio Cultivator says that a grape vine at a hotel in that State, but three years old, has climbed to the second story, and has extended its branches round the corner of the building to a distance of twenty or thirty feet, nearly the whole being full of clusters of fruit. The only unusual treatment it had received, was a watering every day with dish-water, and occasionally with soap-suds.

* * *

PLANTS in pots should be kept dry in winter time: they take less harm in case of frost. So that life be kept in them they cannot be watered too little. The plants are then at rest.

Proceedings of Agricultural Societies.

N. Y. STATE AGRICULTURAL SOCIETY.

THE Annual Meeting of this Society is to be held in Albany, on the third Wednesday (17th) of the present month. Premiums will be awarded on Grain and Root Crops, Butter, Cheese, Fruits, &c. We annex names of Judges constituting various Committees:—

Management of Farms—Hon. A. Van Bergen, Coxsackie; William Buel, Rochester; J. S. Gould, Hudson.

Experiments and Essays—Asa Fitch, M. D., Salem; Hon. George Geddes, Onondaga; Hon. S. Cheever, Saratoga.

Cheese and Butter Dairies—B. P. Johnson, Albany; Hon. H. C. Tuthill, Cayuga; A. Doubleday, Broome.

Butter and Cheese—Joseph Alleyn, Rochester; Joseph Carey, Albany; Amos Briggs, Scaghticoke.

Wool—Hon. J. P. Beekman, Kinderhook; S. N. Dexter, Whitesboro'; Hon. D. S. Curtis, Canaan.

Draining—John Dalafield, Oaklands; Roswell Reed, Coxsackie; B. B. Kirtland, Greenbush.

Fruit—E. Emmons, Albany; D. Thomas, Greatfield; H. Wendell, Albany; J. W. Bissell, Rochester; C. S. Wilson, Utica.

For the best new seedling variety of winter apples, of decidedly superior quality, and valuable for exportation; one dozen specimens to be exhibited; together with a history of its origin, a description of the growth, character and habits of the tree, and the growing of the fruit—such fruit to be adjudged by the committee as of the first character for orchard purposes, diploma and $10. For the second best do., $5. The above new seedling variety to be sent to B. P. Johnson, Secretary, Agricultural Rooms, Albany, before the 15th January, 1849, for examination.

FIELD CROPS.—*Wheat and Indian Corn*—Charles Lee, Penn Yan; Hon. Tracy Pardee, Batavia; Hon. John I. Brinkerhoff, Cayuga.

Barley, Rye, Oats, Peas, and Beans—Hon. O. Hungerford, Watertown; J. W. Ball, Exeter; W. A. McCulloch, Greenbush.

Potatoes and Root Crops—A. Osborn, Watervliet; Robert Harper, Albany; J. W. Haydock, Greenbush.

Corn Fodder, Hops, Clover and Timothy Seed.—Col. E. Kirby, Brownville; Hon. Benjamin Enos, De Ruyter; Hon. Henry Wager, Western.

Arrangements for Pomological Exhibition—Herman Wendell, M. D., J. McD. McIntyre, James Wilson, Albany.

Prof. E. EMMONS, M. D., is expected to deliver an address on the first evening of the annual meeting. Notice will be given of the subject of the address.

A Pomological Exhibition is to be held in connection with the meeting, and will undoubtedly add to the interest of the occasion.

* * *

MONROE COUNTY AG. SOCIETY.—At the Annual Meeting of this Society, held on the 12th ult., officers were elected for the year 1849, as follows: ALFRED FITCH, President; C. K. HOBBIE, J. S. RAMSDELL, and WM. R. BOOTH, Vice Presidents; JOSEPH ALLEYN, Rec. Secretary; D. D. T. MOORE, Cor. Secretary; JOHN H. ROBINSON, Treasurer. ELISHA HARMON, D. D. T. MOORE and JOSEPH ALLEYN were appointed delegates to the Annual Meeting of the New York State Ag. Society.

The Committee on Field Crops awarded a premium of $3 and a copy of Trans. Am. Institute to RUFUS BECKWITH, of Henrietta, for Corn Crop averaging *one hundred and eighteen bushels per acre.* To JOHN ROW, of Riga, a premium of $5 for crop of Mangel Wurzels, averaging at 60 lbs to the bushel, 1311[illegible] bushels per acre. (According to the requirements of the State Society, 50 lbs. to the bushel, this crop would be equal to 1574 bushels per acre.)

The meeting was an unusually interesting one.

Ladies' Department.

The following article is appropriate for this department, and we insert it with an assurance of more, if not better, extracts from the same valuable work.—It is from a new and handsome volume by Dr. M. M. Rodgers, of this city, entitled "Scientific Agriculture"—embracing the elements of Botany, &c.

ORGANS AND STRUCTURE OF THE FLOWER.

The essential organs of a flower are three, viz: the *stamens*, the *pistils*, and the *receptacle*. These are all the parts necessary to the perfection of the seed—they, therefore, constitute a perfect flower: to these, however, is added in most flowers, the *perianth*, consisting of the *calyx* and *corrolla*.

The stamens are slender, thread-like organs within the "flower" or perianth, around the pistils: their most common number is five; but this varies from one to a hundred. Their office is said to be the fertilization of the seed.

The pistils are usually slender, larger than the stamens, and occupy the center of the flower: "they are destined to bear the seed." They are sometimes numerous, but in many cases there is only a single one.

The receptacle is placed at the end of the flower stalk, and constitutes the basis upon which the organs of fructification are usually placed, in such manner as to encircle it.

Fig. 1.

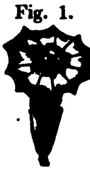
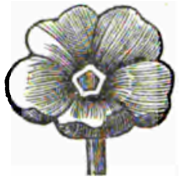


Fig. 2.



The corolla is the interior part of the perianth, consisting of one or more circles of colored leaves of various hues and delicate texture, situated upon the receptacle: these leaves are called *petals*, (Fig. 3, a, a,) and they may be united at the edges, constituting a bell-form flower (Fig. 2,) or they may be separate, constituting a wheel-form flower, (Fig. 1.)

Fig. 3.

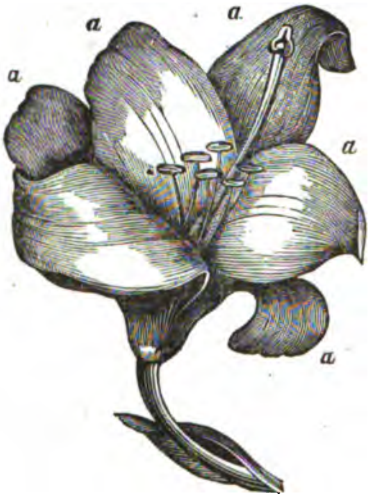
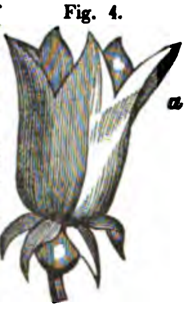


Fig. 4.



The calyx is the external part of the perianth, consisting of a circle of leaves, the same in number as those of the corolla, in some cases distinct, and in others united: they are usually green: these leaves are called sepals. (Fig. 4, a.)

We see now that a complete flower is made up of four regular sets of organs, viz: the *stamens*, *pistils*, *receptacle*, and *perianth*; these organs are arranged in concentric *whorls*, or rings: some of them may be absent or suppressed, some superfluous ones may be developed, and some degenerated into those of a different set, as petals into stamens, flowers into leafy branches, &c.

The *stamen* consists of three distinct parts, viz: the *filament*, (Fig. 5, a,) the *anther*, (Fig. 5, b,) and the *pollen*. The filament is the thread-like part which supports the anther at its summit: the pollen is a fine yellow dust of various forms contained within the cells of the anther, until discharged through its pores into the air.

Fig. 5.

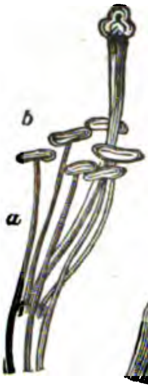
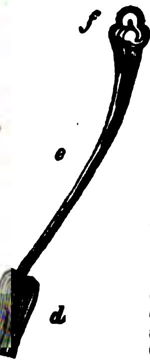


Fig. 6.



The *pistil* consists also of three parts, viz: the *ovary*, the *style*, and the *stigma*.

The *ovary* is the base of the pistil which contains the young seeds, and which ultimately becomes the fruit. (Fig. 6, d.)

The *style* is a prolonged column arising from the ovary, and supporting the stigma at its top. (Fig. 6, e.)

The *stigma* is the upper extremity of the style, usually of a globular form: it may be either simple or compound, according to the structure of the ovary and style. (Fig. 6, f.)

The *ovules* are minute globular bodies in the cells of the ovary, which become the seeds of the matured fruit.

The *placenta* is a fleshy ridge within the cells of the ovary, from which the ovules are developed, and to which they are attached.

There are several other secondary and minute parts, belonging to the flower, which it is not necessary or practicable to describe here, as it would only burthen the memory with technical terms which would convey but little useful knowledge.

* * *

Training of Children.—The instruction of your children cannot commence too early. Every mother is capable of teaching her children obedience, humility, cleanliness, and propriety of behavior; and it is a delightful circumstance that the first instruction should thus be communicated by so tender a teacher. It is by combining affectionate gentleness in granting what is right, with judicious firmness in refusing what is improper, that the happiness of children is promoted, and that good and orderly habits are established. If children are early trained to be docile and obedient, the future task of guiding them aright will be comparatively easy.—*Nicholls.*

* * *

Sweetening Butter.—Mr. Trevelgan has communicated to the Mechanics' Magazine the following item of dietetic improvement. Whilst making some experiments, it occurred to him that butter, either fresh or salt, possessing a disagreeable effluvia and flavor, might be rendered perfectly sweet by the addition of a little carbonate of soda. On trial this surmise proved correct. The proportions are, carbonate of soda, two and a half drachms to butter three pounds. In making fresh butter, the soda is to be added after all the milk is washed out, and is ready for making up. The unpleasant smell is produced by an acid, which being neutralized by the alkali, disperses at the same time the disagreeable flavor. This acid is generated by peculiarities in the constitutions of some cows, by the condition of certain fodders, by the length of time the cream is kept before being churned, but too often by the dairy utensils not being kept thoroughly clean. Soda produces the same results when added to the culinary greases—as drippings, lard, &c.

* * *

To Purify Honey.—Expose the honey to frost for three weeks, in a place where neither sun nor snow can reach it, and in a vessel of wood or other substance which is not a good conductor of heat. The honey is not congealed, but becomes clear.

* * *

Cleaning Silk.—The following directions for cleaning silks are by one of the first Parisian dyers: Half a pound of soft soap, a teaspoonful of brandy, and a pint of gin; mix all together; with a sponge or flannel, spread the mixture on each side of the silk, without greasing it; wash it in two or three waters, and iron it on the wrong side; it will then look as good as new.

Boys' Department.

It was our intention to occupy at least one page of this number with matter interesting to our young friends—but the space devoted to other departments compels us to contract our anticipations, as well as articles. We have hardly room to *begin to talk* with the thousands of boys who, we hope, are constant and attentive readers of the Farmer—and who, if they act well their several parts in the pathway of life, will soon become intelligent, useful, and honorable men. But it shall be our endeavor to make amends, in future numbers, for the lack of instruction or amusement in the present. Premising thus much, we wish our youthful readers a "Happy New Year;" trusting that they will so improve the hours, days and months of 1849, as to acquire the sound principles, industrious and systematic habits, and mental wisdom necessary to constitute capable and intelligent cultivators, good brothers, husbands and fathers, and worthy citizens.

Farmer's Boys.—There is a wholesome change going on in public sentiment, which promises to do much for the improvement of the country, and the condition of the people. We mean the change which is taking place among the young in relation to the great work of tilling the soil. A few years ago, and the young men left their father's farms as soon as they could get away from them—and the fathers themselves not unfrequently encouraged them in it. A hard hand and a sunburnt face were deemed poor recommendations in life; and more *genteel* modes of getting a living were sought by the young. But they are beginning to look at the matter in a different light. The dull times through which we have passed, have opened their eyes to the fact, that after all there is nothing like a farmer to stand through all times, and they are quite content to stay at home. The result will be, that our farms will be to a very great extent better cultivated, and produce more — that large farms, which are not half cultivated, will be divided, and well husbanded—and that we shall have a large and virtuous population scattered all over our fertile hills.—*Nashua Tel.*

* * *

The appetite for sensual pleasures palls with enjoyment. With moral and intellectual pleasures, the reverse is true.

Books on Agriculture, &c. — The Publisher of the Farmer keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

American Farmer's Encyclopedia. $3 50 in leather—cloth $3.
American Shepherd, by Morrell. $1.
American Agriculture, by Allen $1.
American Poulterer's Companion, by Bement. $1.
American Veterinarian, by Cole. 50 cents.
Buist's Kitchen Gardener. 75 cents.
Buel's Farmer's Companion. 75 cents
Chaptal's Agricultural Chemistry. 50 cents.
Downing's Fruits and Fruit Trees of America. $1 50.
Domestic Animals, by R. L. Allen. Cloth, 75 cts.; paper, 50 cts.
Farmer's and Emigrant's Hand-Book. $1.
Fruit Culturist, by J. J. Thomas. 50 cents.
Gardener's Farmer's Dictionary. $1 50—leather, $1 75.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Loudon's Ladies' Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chemistry, (pamphlet editions.) 25 cents each
Parson's on the Rose. $1 50. Prince on the Rose. 75 cents.
Rural Economy, by Boussingault. $1 50.
Stable Economy, by Stewart. $1.
Scientific Agriculture, by Rodgers. 75 cents.
Smith's Productive Farming. 50 cents.
Treatise on Milch Cows. 38 cts. Treatise on Guano. 25 cents.
Youatt on the Horse, (new edition.) $1 75.
Youatt on the Pig. 75 cents.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired.

Address to D. D. T. MOORE,
Rochester, N. Y.
Jan. 1, 1849.

Albany Agricultural Warehouse and Seed Store.—The subscriber being a sufferer by fire, in common with a large portion of the citizens of Albany, (having lost his store and stock on the 29th of October last,) has secured for a term of years the new and extensive store, No. 369 Broadway, or old Market-street, a few doors south of the Post Office. This store being 145 feet deep and four stories high, is much larger than his former one, running through from Broadway to the Canal Basin; and Broadway being the principal thoroughfare in the city between the Boat Landings and the Depots, the location is readily found. These advantages, with the increased facilities, will enable him to transact many times the business heretofore done by him, and more convenient for the trade generally.

In connection with these changes, he is erecting an extensive manufactory in the central part of the city, sufficiently large to accommodate over one hundred mechanics, and a proportionate amount of labor-saving machinery, which will enable him at all times hereafter to execute orders with despatch. A continuance of the very liberal patronage heretofore bestowed upon his establishment is solicited.

H. L. EMERY.
January 1, 1849.

Agricultural Warehouse and Seed Store at Buffalo.—At the request of numerous friends, we have opened an Agricultural Warehouse and Seed Store, and have made such arrangements as will enable us to keep on hand a large and full assortment of implements of any useful kind.

We have also arrangements for Trees and Seeds equal to any other establishment in the Union. Orders and patronage solicited. Manufacturers are requested to send us samples of their implements and machines.

T. C. PETERS & BRO.,
Corner Washington and Exchange-sts.
Buffalo, Jan. 1, 1848. [1-5t]

Scientific Agriculture, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to practical Agriculture: by M. M. Rodgers, M. D., with the approval and assistance of several practical and scientific gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and younger agriculturists."—*Prof. Chester Dewey, Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N Y. Farmer and Mechanic.*

"It appears to be exceedingly well adapted for the purpose of instruction. It is concise and plain—neither too much nor too little."—*Hon. Zadock Pratt.*

ERASTUS DARROW, Publisher and Bookseller,
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally. [1-1t*]

Genesee Seed Store and Ag. Warehouse—*Irving Hall, opposite the Eagle Hotel, Buffalo st.*—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business, We shall keep constantly for sale, all kinds of *Imported and American Field and Garden Seeds*, and a large assortment of the most approved *Implements and Machines* used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

Straw and Hay Cutters.—We keep all the approved patterns of Straw Cutters, and would especially invite particular attention to our assortment of Ruggles, Nourse & and Mason's Patent, to which was awarded the 1st Premium at the late State Fair at Buffalo, and for which we are the sole agents in Rochester.—There are 14 sizes of this cutter, varying in price from $10 to $28.

Corn Shellers.—All the different sizes of Burrall's celebrated Sheller. Also, Clinton's and other approved patterns.

Rochester, Jan. 1, 1849. RAPALJE & BRIGGS.

Mt. Hope Garden and Nurseries, Rochester, N. Y.—The proprietors of this Establishment solicit the attention of Amateurs, Horticulturists, Nurserymen and dealers in trees, to their present large stock of well grown, thrifty and healthy FRUIT TREES—comprising the very best varieties of Apples, Pears, Peaches, Cherries, Plums, and all other fruits. Their stock of *Dwarf Pears, Apples & Cherries*, for garden culture, is the largest in the Union.

The stock of Ornamental Trees and Shrubs is also very large, and can be furnished at low prices. Also, *Hedge Plants*, such as Buckthorn, Privet, Osage Orange, Norway Spruce, Hemlock, Red Cedar, American Arbor Vitæ, &c., &c.

All orders promptly attented to, in the best manner. Catalogues forwarded to all *post paid* applicants.

Jan. 1, 1848. ELLWANGER & BARRY.

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Market Prices of Agricultural Products.

New York, Dec. 26.

FLOUR—Extra brands, $6,12a6,25; pure $5,62½a5,87; common and good, $5,37½a5,50. Meal, $2,87a2,94. Rye flour, $3,06a3,12½.

GRAIN.—Genesee wheat, $1,25; good western held at $1,10 Corn, old Southern at 56a59; new northern 60a61; old mixed 64. Oats, 33a36.

PROVISIONS.—Pork market steady, and old held at $10,75a13; new sold to arrive in January at $11a14. Beef dull at $5.65a7 and $9,75a11. Lard quiet at 7¼a7¾c. Fair business in Butter and Cheese—the latter at 6½a7c.

Rochester, Dec. 27

FLOUR nominally $5. Wheat, $1,06. Corn, 50c. Rye 50c. Barley 50. Oats 26.

PROVISIONS.—Pork in hog $5 per hundred; mess, $13a14 per barrel. Beef $3,50a4 per hundred. Lard 7½a8c. Butter 12a15c. Cheese 5a6cts.

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THE NINTH VOLUME OF THE FARMER, for 1848, just completed, and for sale bound or in numbers, as preferred. It contains a larger amount of matter pertaining to Agriculture and Horticulture than any similar work of the same price ever published—and is illustrated with OVER EIGHTY ENGRAVINGS Price, 62½ cents bound in boards and leather—or 50 cents in marble paper, with cloth backs.

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Fruit Scions.—The subscriber can furnish Scions from the "Northern Spy" and most other apple trees for 1849. They can be sent by Express or Mail. Price $1 per 100.
Rochester, Jan. 1, 1849. [1-3t] JAMES H. WATTS.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c.

THE TENTH VOLUME of this Journal will commence on the 1st of January, 1849. In making this announcement to [illegible] AGENTS and the FARMERS and FRUIT CULTURISTS of the country, and again asking their support in behalf of the work, the Publisher has the satisfaction of stating that the GENESEE FARMER now has a circulation EXCEEDING, BY SEVERAL THOUSAND, that of any similar periodical published in America. This fact, alone, furnishes abundant evidence of the *real value* and *superior merit* of the work—for no journal, however cheap, can become and continue so universally popular, unless actually WORTHY of the substantial support of an intelligent community.

THE HIGH REPUTATION which the Farmer has acquired throughout the United States *will be maintained*, and if possible *augmented*, during the ensuing year. To accomplish this object, no effort or expense will be spared by the Editors or the Publisher. Their aim is to furnish a *reliable* and *independent* journal—one which shall avoid and condemn *humbug* in whatever guise it may appear, and impart correct practical and scientific information on all subjects pertaining to Agriculture and Horticulture.

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THE GENESEE FARMER,
Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, EDITORS.
P. BARRY, Conductor of Horticultural Department.

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THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—FEBRUARY, 1849. NO. 2.

AGRICULTURAL EDUCATION.

It gives us especial pleasure to notice the strong recommendation of Gov. Fish to the Legislature, to endow an Agricultural School. A whole generation has passed off the stage since Judge Buel reported a bill in the session of 1822–3, to establish such an institution as is now for the first time commended by an Executive of the Empire State. How sure, but slow is the progress of public opinion! Mental training and professional study are deemed by every body necessary to qualify a man to be an officer in the army, the captain of a ship, a clergyman, lawyer, surgeon, or any thing else of the least pretensions to science, but farming. The professional agriculturist is thought by many to need no particular knowledge of the origin, composition, and capabilities of the various soils which he cultivates. For him to study the chemical difference between granitic, syenitic, felspathic, slate, sandstone, and limestone rocks, by the weathering and disintegration of which all the minerals in his lands were derived, would be, in the opinion of some, as waste of time.

Thousands of practical farmers know that wood ashes are excellent fertilizers, and contain considerable *potash* and other valuable minerals, but they would not permit their sons to attend an agricultural school provided with a good laboratory to extract from the parent rocks and soils every *atom*, whether potash, lime, soda, magnesia, iron, chlorine, sulphur, phosphorus, flint, carbon, nitrogen, or the elements of water, taken up by a forest tree or a cultivated plant. They seem to cherish a kind of morbid, hydrophobia dread of an increase of knowledge on the part of the great agricultural interest of the country. Such men would not take an agricultural journal on any account; nor read a book on any rural topic, nor permit their children to study one, lest some new light should disturb their profound Rip Van Winkle sleep in after years.

Fortunately, the absolute rule of this class of farmers is drawing to a close. They have had their day, and it has been a long and gloomy one. A new era has dawned upon the world to bless the children who are to follow the plow in after life. Unlike their fathers, they will be taught to know what changes the plow, harrow, cultivator and hoe effect in tilled land. Every man sees that these implements which have been in use so long without a *why* or a *wherefore*, neither add to, nor take away from the soil. What *chemical changes* in the elements and combinations of earth do the plow and the hoe bring about, so beneficial to the husbandman? Who can say that no farmer applies too much, none too little labor, to give the most profitable return? Who dare assert that he adapts each fertilizer to the particular wants of every crop? and never fails to sow or plant the kind of vegetable with the elements of which his soil is most abundantly supplied? Who is certain that he makes the best practical use of the mold, manure, lime, potash, gypsum, bone dust, and other substances appointed by Providence to form every cultivated plant? Think of these things.

Alas! that so many should believe that they are *too wise* to learn any more about the natural laws which regulate the organization and growth of all crops and domestic animals. Such have not begun to study. Establish one good school, and the fact will soon be apparent, that at least half a dozen more should be added to the list. Indeed, we fear that there may be so many sections, each eager to get the institution located in its neighborhood, as to defeat the scheme altogether for the present. This will be the height of folly. Considering the efforts that were made in that behalf in 1843, 4 and 5 by the friends of the measure in Western New York, it would seem to have a pretty strong claim to the honor. But we care infinitely more for the advancement of the cause, than for the location of the school. We hope to live long enough to see honest manual labor and high intellectual culture fairly united; just as God has united in the same person both hands to work and a mind to reason. Science needs but to be fairly understood to secure an enduring place in the popular heart.

Encouragement — *Thanks.* — During the past month we have received abundant evidence of the high estimation in which this journal is held by all classes of citizens—farmers, mechanics, and members of the learned professions. Though its chief patronage is derived from agriculturists, the Farmer receives a large portion of its support from, or through the influence of, men of other professions and occupations. Many clergymen, physicians, mechanics and merchants in all sections of the Union, are actively engaged in extending its circulation. We would fain tender suitable acknowledgments to all who are laboring to promote the cause of improvement in this manner. And we invite others to present the Farmer to the attention of their friends.

DEEP AND SHALLOW DRAINING.

It is loss of time to discuss whether deep or shallow drains are best, till you know what kind of strata you are going to cut through. Both are good when the soil is adapted for them; and nothing but experience and great practical knowledge can tell what depth, what distance, and what direction they should be cut in; and not then, till he sees what form the land is in, and what kind of strata lies under. There can be no uniform system for draining. The process must be entirely governed by the nature of the strata and how it lies.

In the length of my practice, which is upwards of forty years, I have drained almost all kinds of lands from 2 ft. and 2 ft. 6 in., to 3 ft. 6 in. and 4 feet. The different kinds of subsoil rule these, and what depth they lie, and whether they are porous above and retentive below, or retentive above and porous below. A man cannot tell which of these depths are best until he comes to execute the work. I have found them all to answer when the strata is adapted for them. Respecting the distance, that depends upon the form the land lies in, and what kind of strata lie under. I cannot find any body that can give a reason why drains should be cut 5 feet deep in stiff clay, and the clay put on the bare pipe or tile again. In the course of my practice I have seen one of clay put upon the brushwood which was put upon the tile; and which prevented the drain from having the desired effect. Every farmer that is a little acquainted with the spirit level, considers himself competent to the drainage of his land, without the assistance of a practical man; and in cases applying solely to clay and surface water the object is generally well effected; but where the land is springy, the strata varies, and the water breaks out at different levels, the spirit level must be used with great care, and with the aid of a practical man. In these cases I consider parallel draining of no use, as it would double the cost of the land, and not have the desired effect. But these things would require a practical man, and he must have the knowledge and use of the spirit level, or else he cannot make an estimate of what the draining of an acre of land will cost. In the course of my practice I made an estimate to the amount of £1,921 18s. 6d., and contracted for that sum before a drain was cut. Whenever I find it necessary to cut to any depth in clay, I always fill the drain up again with some kind of material that will admit of free access for the water to the tile, and spread the clay on the land. I have known a piece of land drained from three to four feet deep, and the clay put in again, and the land was none the better.—*Cor. of Chester (England) Chronicle.*

Coming from a practical man of large experience, we regard the above brief remarks on deep and shallow draining, and also on the impropriety of filling a ditch with compact, impervious clay, over a stone, tile, or brushwood drain, as exceedingly valuable. The writer says that he has had 40 years experience in draining lands, and made estimates and contracts in single jobs of £1,921 18s. 6d., equal to nearly $10,000 our currency.

The practice of carting off the clay excavated in digging ditches, after it has undergone the mellowing and chemical influences of sunshine, frost, oxygen and carbonic acid, above ground one year, and spreading it as a fertilizer over the field, we have seen performed with great success at the South. It may be removed as fast as the clay is dug out in making the ditch; and some planters have horse carts at hand for that purpose—each shovelfull of earth being thrown into a cart, rather than on the ground by the side of the excavation. Others use a scraper, and with it haul the clay thrown out back into any low places that may exist in the vicinity. Whether the soil and subsoil thrown out in digging a ditch be taken off immediately, or allowed to dry, freeze, and more or less decompose, before it is carried away to be used as a fertilizer, or to fill hollows and depressions, is, probably, not very important. It may not however be amiss to inform our young readers *why* such soils often partake of the character of marl, and are of far more value as a top-dressing than would be an equal quantity of dry upland surface and subsoil excavated in a similar manner. The elevated position and perviousness of the latter, naturally favor the washing away of all their soluble salts of lime, potash, soda, magnesia, alumina, &c., and all decomposing, soluble mold, by the rains and snows that fall in the course of the year. Low grounds are less exposed in this way. On the contrary, the surface of the earth in such places is often saturated with water that has leached through the fertile soils of uplands, and dissolved out of the same not a little of both the organic and inorganic food of plants. This water evaporating in natural basins, or on level surfaces, leaves its fertilizing lime and other elements behind. The cream of high rolling lands, and especially when cultivated, is constantly flowing, both in limpid springs and turbid surface streams, into the basins and over the flats of lower levels. The same causes which render the ocean and seas salt, and furnish an abundance of nourishment for the support of myriads of marine plants and animals, operate to enrich all low lands. Valuable as these generally are when well drained, they are usually worthless without it for agricultural purposes.

Having intimated the impropriety of filling up ditches over wood, tile, and stone drains, with compact clay, it follows that they should be covered with sand, gravel, or some earth through which water can easily percolate. It is proper to remark in this connection, that Englishmen of large experience are not agreed in regard to the propriety of using the clay dug from a ditch to fill the same over the conduit for carrying off water at its bottom. Many adopt this practice and say that it answers every desirable purpose. Others fill with small round stones, gravel, sand, or loose earths. To prevent the filling up and stoppage of the drain, no surface water with its mud and sediment should be permitted to flow into it. All water should filter through soil or sand before it enters the subterranean passage. This alone will prevent the necessity of taking up and opening the drain anew, and often. A drain well made will last for ages and need no repair—operating as a perennial spring. As one means of promoting the health of the human family and domestic animals, the drainage of swamps and all wet, low grounds, deserves far more attention in this country than it has yet received.

Pea Bugs.—Various remedies have been suggested to get rid of the pea bug—such as scalding the seed, putting it in bottles hermetically sealed, &c. The first has its objections, and the second retards the growth and exit of the bug until after planting time, but does not in all cases destroy it unless more air is abstracted from the bottles than can well be done without apparatus. A certain way is to gather in one year your seed peas for two, put them in separate bottles, and leave the bottles for the second year corked up until you want the peas to plant. Peas lose none of their vitality by being kept, (they have been found to grow taken out of an Egyptian mummy,) and it is a question whether, like melon seed, they are not all the better for keeping. A. H., *Meadville, Penn.*, 1848.

Never allow the seeds of any weed to ripen on the ground. If this were always attended to, a garden or farm would soon be cleaner, and in time clean.

ANALYSES OF FIVE VARIETIES OF CABBAGE.

Mr. J. H. Salisbury, assistant in the Laboratory of Prof. Emmons of Albany, has made a valuable contribution to the farming and gardening interest of the United States, through the pages of the December number of the American Journal of Agriculture and Science, by publishing the results of ten analyses, five of the organic and five of the inorganic elements of as many varieties of cabbage. This is a most nutritious vegetable; and we believe it can be grown with sufficient economy to aid in making butter, cheese, and wool, with a fair profit to the husbandman.

Every farmer knows that cabbage needs rich land; Mr. Salisbury has demonstrated the reason *why*. The varieties examined by him are the Drumhead, Savoy, Red cabbage, Cauliflower, and Turnep cabbage. They all contain a good deal of water. 100 parts of the head of the common white or large Scotch Drumhead gave only 11.335 dry weight and 88.665 water. The Savoy contains about 2 per cent. less of water, or 13.475 parts dry matter in 100 of the fresh head. The Cauliflower contains still less water, having 14.300 per cent. of dry substance. The Turnep-rooted cabbage has nearly as much water as the common turnep itself, giving 91.140 parts of the pure liquid in 100 of the plant.

Estimated dry, the Drumhead contains 6.969 per cent. ash; Savoy 6.605; Red cabbage 7.695; Cauliflower 10.629; Turnep cabbage 9.086. They all abound in phosphoric and sulphuric acids, combined with soda, potash, magnesia, lime, and iron. They are quite an exhausting crop. Supposing an acre of choice land to yield, as it has done, 36 tons of the Drumhead variety, the crop would take from the soil in pounds, the following minerals:

Silicic acid,	2.958	lbs.
Sulphuric acid,	56.134	"
Phosphoric acid,	63.784	"
Phosphate of per oxide of iron,	5.916	"
Lime,	14.484	"
Magnesia,	17.986	"
Potash,	142.448	"
Soda,	161.772	"
Chlorine,	3.978	"
Total,	468.450	"

Of these 468 lbs. 304 are pure soda and potash, and 120 lbs. phosphoric and sulphuric acids.

Cabbage is found to contain a large amount of organized nitrogen or azote. Calculated dry, i. e. after the water is all evaporated, Drumhead gives 17.899 parts in 100; Savoy 20.281; Cauliflower 20.763; Red 16.212; Turnep-rooted 19.052. Dry lean beef and dry blood contain within a fraction of 15 parts in 100 of nitrogen. Skin has 18.72 per cent.; wool, hair and horn a little less than 18 per cent.

From the above statement it will be seen that the plant under consideration is remarkably rich in nitrogen, phosphorus and sulphur; and when cabbage decays or rots, it smells not unlike decomposing meat or eggs. A cow can elaborate a good deal of cheese, and a turkey organize eggs, by eating cabbage.—That healthy children can be raised in a good degree on this food, other countries beside Holland and Belgium can bear witness.

A vegetable so abounding in the elements of bone, skin, brain, and all flesh, demands a soil pretty thoroughly saturated with *animal* manure. The liquid excretions of animals, common salt to yield soda, wood ashes to furnish potash, bones to supply phosphoric acid, and gypsum to add sulphur and lime, will all come in play. With rich well-plowed land, industrious boys can raise and house, or bury in the lot, a good many dollars worth of cabbage, and not greatly interfere with their other duties. See that the seed is sown early, and every thing attended to in season. Perhaps the large per centage of water in this crop will deter some from trying to grow 36 tons on an acre. It should not. There are 75 lbs. of water in 100 of fresh lean beef. Near cities where night soil can be had, cabbage seed might be drilled like turneps in fields, and cultivated partly with a small plow, or some other implement drawn by a horse.

GOLDEN DREAMS.

California Gold, its effects on business and black legs—Advance in land and digging 'taters—Beggary of Mortgagees and Silk Stockings—Considerable of a Shower—All the world mad and in straight jackets—The wise all rich, &c.

What will be the result of the recent discovrey of the precious metals in our new acquisitions from Mexico, on the business, morals, and politics of our country? If only a moiety of the reports are true, and there can not be a rational doubt indulged on the subject, there is a revolution at hand in all of our preconceived notions, habits, and pecuniary relations, such as the world never experienced.

If gold was as plenty as iron, it would be worth no more than iron, nor would a pound of it buy any more belly timber than a pound of iron. Real estate, farming lands, and labor, being the only real producing agents, the *primum mobile* of wealth, must advance with giant strides; and all those who now live on the representative of the "almighty dollar"—on the dividends, or interest of bonds, mortgages, government stocks and others of fixed value, and all who subsist on salaries, annuities and pensions, will become beggars. The time is at hand when a barrel of flour will cost $20, a pound of meat and butter 50 cents, and other necessaries in proportion; a half eagle will not buy as much as a silver dollar will now; the dividends and salaries that now support the wealthy in luxuries and extravagance, won't buy Johnny-cake and salt to support nature.

If gold becomes extremely plenty, it must of necessity depreciate in value, or rather every article of production will advance in price, as it always did and ever will, at every great inflation of the currency. No man ever got five dollars very easily, but what he did, or was tempted to play the fool with it; what has been, will be, to the end of time.

Land, machiney, and labor, will be the great levers that will move the world, and before one year passes, if the clouds of the golden shower continue to rise from the western horizon, there will begin an inquiry for real estate, and monied capitalists will resort to that investment as the only ark of safety for their funds; so old square toes, hold on to your acres and bide your time — don't be fooled with the idea that "it is not going to be much of a shower."

Now, is there any foundation for believing any of these predictions? Let us see. The accounts that we receive is, that gold is found in various localities embracing 10 to 20,000 square miles of surface—say 10,000, that is 640,000 acres, which at 10 acres to a person, which is a mineral lot in the U. S. lead mines, would allow a lot to 64,000 persons. Each one procuring an ounce per day, which is a low rate, is considerably over a million of dollars per day, and equal to 300 millions a year, and lee-way for the rainy season and other casualties. The bullion of the world does not probably exceed 1000 millions of dollars, and at the above rates it would be doubled in about three years; to say nothing of the diamonds, platina, silver, lead, and quicksilver which are found in that region, in which case the result is inevitable, we shall all go mad under the new dog star. So be it. We are willing to trust our individual luck at catching larks when the sky falls. The wise will grow rich and the fools poor; but whether temperance, honesty, charitableness, morality, content, happiness, home made coats, and stogy boots, and hard hands, and honest hearts, will prevail in this happy land, under this state of things, is another affair — which this deponent at this time sayeth not. *

NOTES FOR THE MONTH.

BY S. W.

Prosperity of Farmers. — It is universally admitted that the farmers of Western New York are by far the most prosperous moneyed class of our citizens at this time. What the Erie Canal has not done to produce this result, the Railroads have at length accomplished. Slaughtered hogs now bring 5¼ cents the pound, and sheep $3 a head, to take east on the Railroad. Thanks to the drovers, beef is hardly to be had at any price; and poultry *is not*. Farms all alluvial (as our formations are,) are now in demand at improved prices. Our farmers — at least some of them — begin to learn that it is easy to have a new farm beneath an old one; ditching and draining are two items now added to the routine of farm labor. If the more obtuse of our rural population still resist modern improvements, they no longer scoff at them. Slow as farmers have been to embrace the late new theories and improved practice in farming, in this age of universal progress and astounding discoveries, they no longer hang back, but are up and doing.

Top Dressing. — The London Farmer's Chronicle has a long, interesting article on "top dressing fruit and garden grounds." If the advantages of top dressing are so manifold in the cool and humid climate of England, how much greater benefit may be derived from it during our hot dry season? It is not generally known among farmers, but such is the fact, that a newly planted tree may be often saved alive, by a top dressing of straw for several yards around the tree, when watering alone will have no power to save it; this covering keeps the soil both loose and moist. Subsequent top dressing with long manure, turning the same under and planting potatoes, will very much accelerate the growth of the trees; the crop of potatoes being clear gain.

One of the great advantages from not feeding meadows and pastures too closely, is the top dressing or shade of the surplus grass. The theory of the "fertilizing effect of shade," is no new theory. Some of our shrewd Cayuga County farmers have long since eschewed the practice of summer-fallowing for wheat.

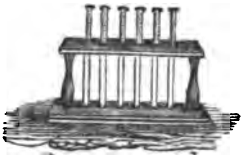
Fattening Beef and Pork. — Whenever I see a farmer peddling half fatted pork, I ask the age of the hogs. Strange as it may seem, such animals have generally starved through two or three winters; and it requires no exercise of faith to believe the farmer's story, that it took fifty bushels of ears to get them started, or *on the lift*. The science of making the most pork with the least feeding, is to keep the hog growing from the start given him by his mother's milk. 'Twas but the other day that I saw a farmer who disports himself on 150 all arable alluvial acres, hawking about a few quarters of lean cow beef; am I in the wrong for saying that I instinctively felt as though all the fat of that animal had been lost, without one cent of corresponding gain to the farmer. I once knew a farmer who suffered his sheep to eat out one side of a stack of hay, when it fell over and crushed several sheep to death. This farmer averred with a smile that the surviving sheep were enough better for their extra feed to compensate him for the loss! But the man who essays to fat a half starved animal from fall to Christmas, has not even the excuse of the sheep story.

BUTTER AND BUTTER MAKING, WITH NOTICES OF VARIOUS CHURNS, &c.

BY HORACE L. EMERY.

Butter making is becoming more generally understood as the farming public become convinced that it is governed by, and in fact depends upon, certain fixed principles, the knowledge of which enables the farmer to produce with certainty more and better butter, and that with uniform if not less expense.

In the first place, the cows of a butter dairy should be selected with special reference to that purpose; for every dairyman has learned by observation that the cow that gives the most milk is often worth little or nothing for making butter. This selection is greatly facilitated by means of the *Lactometer*.— (See figure.) It is simply a series of glass tubes open at the top and set perpendicularly in a frame. These tubes are some 10 inches long, and graduated in inches and eighths from the bottom upward. In using it each tube is supplied with an equal quantity of milk from a separate cow, and all allowed to stand until the cream is risen; then, by examining the tubes before a strong light, the comparative quality of each cow's milk is instantly known by the proportion of cream it contains—thus showing the dairyman at once which cow is most profitable for butter and which for milk.

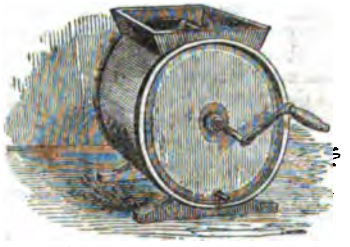


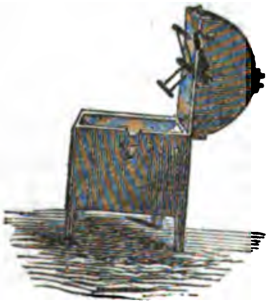
Lactometer.

The next thing, in order to succeed, is to obtain the greatest possible quantity of cream from the milk. To this end it should be allowed to stand without being disturbed in a cool, ventilated place as long as it remains sweet, when it should be taken off and churned — the sooner the better. Many churn the new milk — others the cream and milk together, even after it has become sour. The objection to churning new milk is that a less quantity of butter is produced, and unless the sweet butter milk can be profitably used, a loss of butter, as well as of labor, is the consequence. The objection to churning milk and cream together is the unnecessary labor caused by it, and the objection to keeping it too long before churning, is, that it becomes more and more acrid until it will produce but indifferent butter, at best, and that will remain sweet but a short time even if it is so at first. This last fact may be accounted the principal cause of the great proportion of poor butter in the market.

The next thing in order is to churn the cream in the most simple and direct manner. To this end it is necessary to know the structure of cream and in what state the butter exists in it before the operation. Having carefully examined with a powerful microscope sweet milk, cream, and butter, in the various stages of the operation, I have found the particles of butter in the form of minute globules existing in each and every case without the least perceptible change. In milk the particles appear independent of each other, floating in the fluid. In cream they appear to have partially collected together, not being compact but the interstices filled with the more fluid parts of the milk. In butter they appear closely compact, the fluid being entirely expelled. By various experiments it is ascertained that these particles unite more readily at some temperatures than others, producing at a proper temperature more butter and that of a better quality. If too warm, the adhesive power of the particles is in a measure destroyed and a portion only can be secured, while what is collected is soft and colorless. If too cold, the particles become hard and refuse to unite, though often brought in contact, the result is as before—only a part of the butter is secured and that hard and crumbling. The proper temperature for producing the most and best butter is from 58° to 60° Fahrenheit.

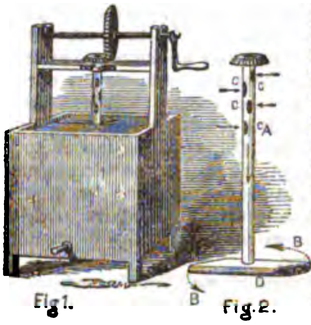
The continued agitation of the cream or milk is the means commonly used to promote the separation of butter from the fluid. This is a simple process and is performed in various ways—in some countries by placing the milk in leathern bottles upon the backs of camels, where the motion of the animal agitates the milk. In this country the ordinary upright dash or barrel churn has been longest known, and produces, under equal circumstances, as much and as good butter as any other kind in use. The Cylinder Churn known as ***Kendall's Patent*** (see figure) is probably as extensively in use as any other, if not more so. Its principal advantages over the dash churn are, that it produces an equal and uniform action by means of a crank, the most natural mode of applying manual power. The paddles are readily removed to take out the butter and it is easily cleaned. The ***Thermometer Churn*** is similar in its construction to Kendall's, except it has two metalic cylinders—one within the other, and the cream is tempered by introducing hot or cold water between them—the temperature being at all times indicated by a thermometer permanently set in the cylinder. The principal difficulty with this churn arises from the butter adhering to the inside of the metalic cylinder. Were it not for this objection, it would be the most complete churn in use.


Kendall's Cylinder Churn.


Gault's Cylinder Churn.

Another kind much in use and highly approved is ***Gault's Cylinder Churn.*** (See fig.) The principal difference between this and Kendall's is that it opens in the middle and never can be more than half full; this would make it necessary to use a large and more expensive article for the same dairy.

Still another kind has been recently introduced, called the ***Atmospheric Churn.*** (See figure.) Its form is square and it has a perpendicular hollow shaft in the center terminating at the bottom in two horizontal hollow arms. By means of crank and gear this shaft is made to revolve rapidly in the direction of the arrows, (B B,) causing the air within the horizontal tube (D) to be thrown out by centrifugal force at the open ends. The fresh supply of air rushing in the upright shaft at c, c, c, c, to supply the arms D, thus causing a commotion by the combined action of the tubes, air, and square form of the churn.



Atmospheric Churn.

The inventors of the churn last named claim that, by the aid of the oxygen absorbed from the atmosphere, butter is produced in less time and with less labor; but experience shows that the separation is caused by the agitation which forcibly brings the particles in contact where they unite and collect in large masses, if the temperature is favorable. In a public trial of the Atmospheric Churn under different temperatures, at the N. Y. State Agricultural Society's Rooms in this city, in September last, it failed to produce butter at all at a temperature of 78° Fahr. After reducing the temperature by ice to 58° and dividing the cream equally between this and Kendall's Cylinder Churn, both were put in motion at the same time. At the end of seven minutes the Atmospheric Churn produced one pound of butter, and the temperature of the cream had risen to 68° Fahr. In ten minutes the Kendall's Churn had produced one pound seven and one-half ounces of butter, and the cream had risen only to 62°. The extraordinary change in temperature in the atmospheric churn was caused by the absorption of heat from the air of the room, (it being quite a warm day,) which was constantly passing through the cream. Kendall's churn being almost entirely shut from the air, the cream was very little affected by it—thus proving conclusively that the presence and absorption of oxygen by the cream is not only unnecessary, but its introduction is often attended with much disadvantage. Could the air where the churn is used always be of the proper temperature, (which is impossible,) the atmospheric churn would undoubtedly become extensively used.

It may be remarked that, other circumstances being equal, the time occupied in churning makes no difference in the amount of butter produced; and consequently where done by dog or water power, the ordinary dash churn can be used to as good advantage as any other. But when manual labor is applied it is important that the process should require as little time as possible, and may be sooner and easier accomplished with either of the cylinder churns above described. *Albany, N. Y., January,* 1849.

NOTE.—For figure, &c., of Crowell's Thermometer Churn, see VOL. IX, page 69, of this journal.—ED.

"LABOR WELL APPLIED IS PRODUCTIVE OF PROFIT."

BY AGRICOLA.

FARMERS should ever bear in mind that "well directed labor" will ensure its reward. Of all classes of men, there is none upon whom this truth needs to be enforced more than the farmer. How many of our farmers are year after year toiling on, overwhelmed with their business on an immense estate, and at the close of the year the accounts are about balanced, and again the same toil and vexation must be renewed. If right directed effort had been put forth, no more land farmed than could be done to perfection, what a saving of labor, what an increase of profit, what a reward in every point of view, would be received! In traveling through the best farming districts of this State, we often find illustrations of this truth most striking.

I have in my eye a farm of medium size, which, a few years since, was any thing but neat and in order, and which gave sad indications that labor had not been "well applied." But a change has come over this scene. A new occupant takes possession, fixed in his principles — determined that he would carry out this great maxim, on which depends the prosperity and success of the farmer, that "What is worth doing, is worth doing well." Now how soon the farm begins to assume a new appearance. The fences are repaired, the land is drained where needed, the buildings are neatly repaired and arranged; manures are obtained best suited to the soil and crops which are adapted to this region; a new and improved stock of cattle, sheep and swine are secured, and in short every thing characteristic of the good farmer appears year after year, under the direction of him who knows how to *apply labor*. Instead of having, at the end of the year, to resort to loans to make up deficiencies, this same farm yields a return that gladdens the heart of the farmer. As years roll on, each succeeding one finds a larger balance in favor of well directed labor; and now, in addition to the ordinary appendages of a farm, there is reared, out of the profits of this well regulated concern, a neat and tasty cottage, in the midst of shrubbery the most tasty and luxuriant — all the work of him who started with the determination to do all things well. And this is not all, as the well regulated expense book is balanced; a profit which would gladden even the hearts of some of our bankers on the capital invested, is found on hand, to be applied as may best conduce to the comfort and welfare of an interesting family. There is no complaint of means to educate the children. They are brought up practically to appreciate the maxim that, "What is worth doing, is worth doing well," and their education prepares them to carry out in all the varied scenes of life this all important but too little practiced truth.

Let me then urge upon the farmers who read this paper,— and I am glad to know they are many, and among the most intelligent in our land,— to put in practice, if they have not already done so, this simple but effectual method of farm labor, which brings with it the most abundant reward, and without which they will in vain struggle on, never securing the end of their toil. Order is Heaven's first law — and let it be yours in every thing relating to your farm.— Remember you belong to a noble profession, and one that is destined to exert a mighty influence on the destinies of a world. As one man, then, let the American Farmers adopt as their motto, "*All things relating to my farm shall be well done*"—and no more should be undertaken than can be thus done — and soon he will be found to occupy that exalted position that will cause his influence to be felt the world over. Surely it can not be necessary to urge upon the enlightened, the intelligent, the hard working American Farmer, further considerations in support of a principle that must, on a moment's reflection, commend itself to every right-minded, reflecting man.

In the London Gardener's Chronicle I find the following anecdote which the celebrated ROBERT BAKEWELL used frequently to relate — he whose name is familiar to almost every one for his extraordinary success in breeding cattle and sheep, and to whom probably Great Britain as well as this country owes as much as to any one individual, for that system of breeding which has secured the choice breeds of animals which are now to be found. It is to our purpose as it gives the history of an old farmer, and one of olden times too, who was renewed by adopting the principle laid down as the heading of our article — "Labor well applied is productive of profit."

Mr. BAKEWELL said: "A farmer who owned and occupied 1000 acres of land, had three daughters. When his eldest daughter married, he gave her one-quarter of his land for her portion, but no money; and he found, by a little more speed and a little better management, the produce of his farm did not decrease. When his second daughter married, he gave her one-third of the remaining land for her portion, but no money. He then set to work, and began to grub up his furze and fern, and plowed up what he called his poor, dry, furze land, even where the furze covered, in some closes, nearly half the land. After giving half his land away to two of his daughters, to his great surprize he found that the *produce increased*; he made more money, because his new broken up furze land brought excessive crops, and at the same time he farmed the whole of his land better, for he employed three times more laborers upon it; he rose two hours sooner in the morning; had no more dead fallows once in three years — instead of which he got two green crops in one year, and ate them upon the land. A garden never requires a dead fallow. But the great advantage was, that he had got the same money to manage 500 acres as he had to manage 1000 acres; therefore, he laid out double the money upon the land.

"When his third and last daughter married, he gave her 250 acres, or half that remained, for her portion, and no money. He then found that he had the same money to farm one-quarter of the land as he had at first to farm the whole. He began to ask himself a few questions, and set his wits to work how he was to make as much of 250 as he had done of 1000 acres. He then paid off his bailiff, (who weighed 20 stone,) rose with the larks in the long days, and went to bed with the lambs; he got as much more work done for his money; he made his servants, laborers, and horses move faster; broke them from their snail's pace; and found that the eye of the master quickened the pace of the servant. He saw the beginning and ending of every thing; and to his servants and laborers, instead of saying, "Go and do it," he said to them, "*Let us go, my boys, and do it.*" Between *come* and *go* he soon found a great difference. He grubbed up the whole of his furze and his ferns, plowed the whole of his poor grass land up, and converted a great deal of corn into meat for the sake of the manure and preserved his black water (the essence of manure;) cut his hedges down, which had not been plashed for 40 or 50 years; straightened his zig-zag fences; cut his water courses straight, and gained a great deal of land by doing so; made drains and sluices, and irrigated all the lands he could; he grubbed up many of his hedges and borders covered with bushes, in some places from 10 to 14 yards in width—and threw 3 and more closes into one. He found out that instead of growing white-thorn hedges and haws to feed foreign birds in winter, he could grow food for man instead of birds.

"After all this improvement, he grew more and made more of 250 acres than he did from 1000; at the same time he found out that half of England, at that time, was not cultivated, from the want of means to cultivate it with. I let him rams, and sold him Long Horned bulls," said Mr. Bakewell, "and told him the real value of labor both indoors and out, and what ought to be done with a certain number of men, oxen and horses within a given time. I taught him to sow less and plow better; that there were limits and measures to all things; that the husbandman ought to be stronger than the farmer. I told him how to make hot land colder and cold land hotter, light land stiffer and stiff land lighter. I soon caused him to shake off his old prejudices, and I grafted new ideas in their places. I told him not to breed inferior cattle, sheep, or horses, but the best of each kind, *for the best consume no more than the worst.* My friend became a new man in his old age, and died rich."

Is it not true that, "Labor well applied is productive of profit?"

WIRE FENCE—HOW TO MAKE, CHEAPNESS, &c.

BY T. C. PETERS.

The experiment of Mr. Adams with wire fence, as detailed in the last number, is worthy of notice. The fence was more costly than it need to have been, and upon the whole would not be the thing for a long line.

I can not do better than to ask you to copy an article on the subject, in the January number of the American Agriculturist—premising, however, that I do not think it best to heat the wire, as I notice by an article in a late number of the Prairie Farmer, that when the wire has been heated it is apt to get bent, and gets out of shape. Perhaps Mr. Adams' suggestion as to the alternate use of a larger and smaller strand is worthy of adoption. It would enhance the price but slightly. A further improvement might be made by training the Prairie Rose, or any other climbing rose, among the wires.

"I am glad to see the attention of farmers turned to this subject, as I believe at no distant day wire fence must become the leading kind generally over the Union. It is true that there is a difficulty in fencing against hogs, but even that can be overcome without much trouble as is hereafter suggested.

"I have never yet had any made, but intend to make a sample next spring. I have given the subject, however, a good deal of thought, and made inquiries and figures thereupon. From some small experiments I have made, there can be no doubt but my figures are mainly correct. I shall use No. 11 wire, cedar posts, as they are the most durable, and shall set them six rods apart, making the fence five strands high. The post being set, I should begin by boring an inch hole through each, at eighteen inches from the ground; then another hole eight inches from that, the next ten inches, then twelve inches, then fourteen inches; making the fence five feet, two inches high. After the wires have been drawn through and strained tight, drive plugs into the holes at each side to hold them in their places. Between each post, and one rod apart, drive down a stake, saw into it opposite each wire, perhaps an inch, lay in the wire, and drive in a shingle nail to keep it in its place. It would be less trouble to drive a small spike into the post and wind the wire round it by one turn, rather than to bore the holes; though the expense would even be more.

"The wire ought to be prepared in the same manner that it is for bridges, boiled in linseed oil for a quarter of an hour, and then dried, and the same process repeated three times. This anneals and at the same time coats the wire, and saves painting it. If, however, there be but a small quantity to put up, it would be better to heat the wire, and afterwards paint it. Coal tar would also be an excellent substance for that purpose. Now for the expense:

A strand of No. 11 wire, 80 rods long, weighs 25 lbs.

80 rods of fence would weigh 125 lbs., at 7 cents,	$10.75
14 red-cedar posts, 25 cents each,	3.50
85 stakes, 1 cent each,	0.85
Preparing wire and painting,	1.00
Setting posts and stakes,	0.50
Putting up fence, including spikes, or boring posts,	1.00
Contingences,	1.00
Outside cost for 80 rods of wire fence,	$17.60

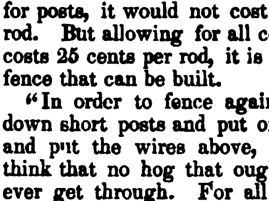
This would be 22 cents per rod; but the actual cost to the farmer would not be 20 cents.

"On most farms, where there is plenty of timber for posts, it would not cost but about 16 cents per rod. But allowing for all contingencies, and that it costs 25 cents per rod, it is then by far the cheapest fence that can be built.

"In order to fence against hogs, I would drive down short posts and put on boards about two feet, and put the wires above, but nearer together. I think that no hog that ought to go at large would ever get through. For all other kinds of stock, it would be impenetrable. A neighbor of mine, who is compelled to fence against a whole village of street cows, put but two strands across a stream, where his fence was washed away, and it has proved a perfect protection. I have seen the cows walk up to it, but have never yet known one to attempt to get through, although the temptation between a fresh pasture and dry streets was very great, I have no doubt. T. C. P.

Darien, N. Y., November, 1848.

Towers' Hay Cutter.—This machine, like Stevens' and Hovey's, is constructed with a cylinder of knives cutting against a hide roller, with this difference,—the knives are straight, but placed diagonally upon the cylinder, and confined by movable cast iron heads, which receive the ends of the the knives, and when these heads are confined, all is held firm. This is a comparatively late invention and promises to work well. The manufacturers hold that this form of knife is best, as, being straight, it is more easily ground by farmers in general.



Want of light to plants makes them pale, want of air makes them draw up long and slender; plants grown in the dark would be quite white.

DRILL HUSBANDRY.

THE broad-cast system of sowing wheat, oats, barley, rye, and peas, generally prevails in this country. It is not practiced because it is the best, but has been handed down from father to son, like an heir-loom, for many generations, and indeed is the only system of which the great mass of our farmers have any knowledge. The intelligence and enterprise of American farmers have become proverbial throughout the entire civilized world, and it is natural to infer that it is only necessary to point out an improved system of managing any branch of the ancient and noble profession of Agriculture, to at once enlist in its favor all those whose circumstances and means would admit of its profitable introduction. A portion of the agricultural press of this country have recently made favorable mention of drill husbandry, and in some instances the knowledge thus imparted has been seized upon and practiced in a manner highly creditable to the parties concerned.

In various portions of the United States may be found very sensible and enterprising farmers who originally migrated from those countries of Europe where drill husbandry has been long successfully practiced; but, strange to say, as if by common consent, it has almost invariably been the case that this as well as many of the other acknowledged improved systems of farm practice in general use in those countries, have been pronounced inapplicable to the agriculture of America. The system of passing wholesale opinions, and looking merely at the surface of things, does not answer a wise purpose at this enlightened period of the history of agriculture.—That drill husbandry can be profitably practiced in this country, has been thoroughly proved by the writer and scores of other American farmers, and when accompanied by horse hoeing, at least twenty per cent. may be added to the yield of those crops enumerated above. From a number of trials, some of which were made upon a pretty large scale, an additional average of five bushels of wheat per acre from drill husbandry alone, was produced; and when horse hoed, a still further additional average of five bushels per acre was the result. So large an extra yield as this should certainly be a sufficient inducement to influence every thinking man to make some effort in becoming acquainted with this or any other system of agriculture adapted to produce so favorable a result.

Some of the most prominent benefits to be gained by drill husbandry are, a saving of about one-fourth in seed; the regular distribution of seed in rows to a uniform depth; the free admission that is given to the air and rays of the sun, between the rows of the plants; the excellent opportunity that it affords the farmer for the eradication of noxious weeds that may appear in the growing crops; and for the use of the horse hoe in the early spring and summer months, by which a much larger growth of straw and yield of grain will be produced on most soils, and besides the ground will be thoroughly cleaned and improved in texture for the succeeding crops.

The saving in the quantity of seed is not an object that should influence a change of system in the mode of farming in this country, so much as that of obtaining a greatly increased yield; but nevertheless, when a large breadth of land is sown, a saving of one or two pecks of seed per acre is an item of some importance. When the seed is sown in rows, the roots of the plants, especially of winter wheat, become interwoven in each other and hence are not so likely to be thrown out and destroyed by the action of winter and spring frosts as if sown broad-cast, and besides the tops of the plants spread and cover the roots, which afford a natural protection to them during the most critical period in the growth of the wheat plant, in the northern sections of our country.

If a portion of a field be sown with a drilling machine, and another portion be sown broad-cast, that which is drilled will not suffer nearly as much by severe frosts as that sown broad-cast. After an extremely cold winter, or a cold backward spring, wheat sown in the ordinary method will in most cases have a sickly and stunted appearance; whereas that sown with a proper drilling machine will scarcely be affected by the frost. There may be exceptions to this rule, but after many years experience with both systems it has been found the case in almost every instance where drill husbandry has been efficiently tested.

The regular width between the rows should not be less than nine nor more than twelve inches. Where drilling grain crops is practiced with a view of employing horse hoes to clean the ground, the rows should be about eleven inches asunder; a less distance than this would be advisable, if the crops are not intended to be hoed; but if the rows be much less than a foot apart, it will be fouud difficult to efficiently work the land with hoes while the crops are in a rapidly growing state. Horse hoeing a crop of wheat or other grain, once or twice in the early part of summer, will promote a very strong and healthy growth of plants, and land that ordinarily produces only fifteen or twenty bushels per acre, will, under favorable circumstances, yield from thirty to thirty-five, and even as high as forty bushels per acre.—While this statement will be found to fully accord with the practice of most of those who adopt drill husbandry and horse hoeing, yet it must not be forgotten that there are soils which do not possess a sufficient amount of the requisite elements or food for the wheat plants, to produce so large a product, and hence a much less average increased yield must be taken in the aggregate.

A smart plow-boy with the aid of a horse, and a single drill horse hoe, will find no difficulty in cleaning three acres per day, in the long days of the month of May or June. Two such hoeings would not cost more then one dollar per acre, which is a very trifling expenditure, when the advantages resulting therefrom are carefully taken into account. By the use of the improved English self-expanding horse hoe, one man and a horse will clean in a more perfect manner than can be done by employing hand hoes, from eight to ten acres per day; but as these machines, being constructed entirely of wrought iron and steel, are very expensive, their use in this country is not likely to become very general.

The increased quantity of straw produced by horse hoeing a crop of wheat, barley, peas, oats or rye in the manner described, may be safely calculated at an average of thirty per cent. on the amount that would be produced by the ordinary method of sowing those grains broadcast. The value of this straw in many parts of our country, especially near large cities would be an object, and where it is not a marketable article, it will be found worth at least as much as the outlay in hoeing the crop, for the purposes of fodder and manure. The extra cleanliness of the ground produced by the frequent use of horse hoes among growing crops, is an advantage that must not be slightly passed over.

The extra large yield of straw, the proportionably increased yield of grain, and the superior tilth or cleanliness imparted to the soil by the practice of drilling and horse hoeing the ordinary field crops grown in our country, are of such great magnitude that no intelligent cultivator should for a moment neglect to make himself thoroughly acquainted with the subject. Every one acquainted with the science and practice of agriculture must have observed the importance of thoroughly disintegrating or pulverizing the soil, and who is there but must have observed the powerful influence that a single hoeing has upon the growth of a crop of garden or field vegetables? No one would think of obtaining a full average of corn without previously pulverizing the ground for the crop, and also, would frequently employ the hand or horse hoe in keeping the ground clean, for the purpose of loosening it, so that the lateral and fibrous roots of the plants might have a perfect freedom in searching for the requisite supply of food to bring them forward to a full and healthy state of maturity. An equal benefit will be found in hoeing field crops, which work cannot be done unless the seed be sown in regular rows.

There are various methods of sowing grain in drills, and the variety of machines used for that purpose in Europe have become so numerous that a clear description of them would scarcely be found interesting to the American farmer. The ingenuity of our mechanics has within the few past years been happily turned to the investigation of this branch of agricultural mechanics, which has resulted in the production of machines for drilling grain that are in many very important particulars superior to the best in use in Europe. These machines are cheap and simple, and before we bring our series on "*Drill Husbandry*" to a close, shall be described, so that their particular merits may be understood and appreciated.

Although horse hoeing is not indispensable to drill husbandry, still, on the score of economy, it should rarely if ever be neglected, and hence in discussing the merits of the latter, we shall invariably press upon the attention of our readers the importance of the former.

DESCRIPTION OF SNOW-FLAKES.

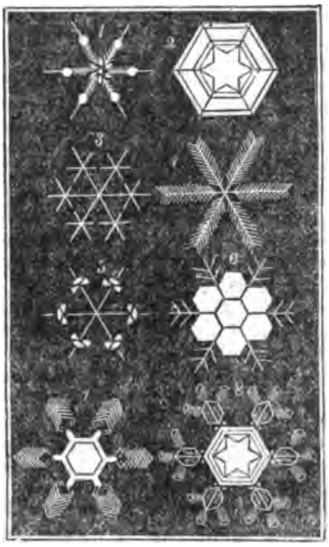
BY L. WETHERELL.

> "Snow is the frozen moisture that descends from the atmosphere when the temperature of the air at the surface of the earth is near, or below, the freezing point."

The size of the snow-flakes depends upon two causes: when the atmosphere abounds in vapor and the temperature is near 32° Fah., the flakes are large; and as the moisture diminishes and the cold increases, the snow becomes finer. In the former condition of the atmosphere it is not uncommon to see flakes that are an inch in diameter. The lower the temperature the less the diameter of the flakes. At 10° Fah. snow-flakes rarely exceed seven-hundredths of an inch in diameter. Snow has been known to fall with a temperture that caused the mercury to fall 12° and even to 20° below zero. But this is not common.

The snow-flakes have a great diversity of form, which, as every accurate observer will testify, constitute beautiful and regular crystals; and it is the copious reflection of light caused by these, that gives snow its brilliant whiteness.

The bulk of snow, just fallen, is ten or twelve times greater, (more or less, depending upon the temperature and moisture of the atmosphere,) than that of the water produced by melting it.



Forms of Snow-Flakes.

Isolated crystals unite under angles of 30, 60 and 120 degrees. These by their different modes of union form several hundred distinct varieties of snow-flakes. Scoresby, an arctic navigator of great celebrity has enumerated six hundred; and these are all comprised under five classes. According to Scoresby the starred figure, (fig. 4) in the diagram given above, is observed when the thermometer is near the freezing point. The hexaedron, (fig. 2) is seen both in moderate and very low temperature. The diagram given above presents only eight of the ninety-six figures delineated by Scoresby. From it, however, the reader may be led to observe for himself, the great variety of forms which Infinite Wisdom has given bodies of so small a bulk as snow-flakes.

Red Snow and Green Snow have been known to fall in the Arctic regions. The cause of this is said, from examination, to be an infinite number of a certain class of microscopic plants which flourish at a very low temperature. But with regard to the worms which are reported to have fallen in this vicinity with the snow last December, I say as a distinguished naturalist of the age said to some one who told him that he had *seen* a shower of animals with his own eyes: "It is fortunate," said he, "that you have seen it, for now I believe it; had I seen it myself, I should not have believed it."

The uses of snow are too well known to the intelligent farmer to more than need naming. It has been properly styled, "the poor man's manure." It forms a warm covering for the soil, and thus defends vegetation from the severity of the winter. It also diminishes the intensity of the darkness during the long winter nights, and furnishes a favorable opportunity for the farmer to replenish his wood-pile, to move his fencing materials, and to carry his surplus produce to market.

REVIEW OF THE JANUARY NO. OF THE FARMER.

MR. MOORE:—I have been looking over your January number, and am much pleased with its appearance, both as to matter and manner. I admire that so few among your 20,000 subscribers become contributors to its pages. There is probably no one single individual among them but what knows some one fact that accident, experience or reason has taught him, that would be interesting and valuable to perhaps nine-tenths of your readers. I can hardly conceive of a person who has the good taste to take and read your paper, but what has the ability to communicate his experience through its pages. In my voyage of life I have never yet found that *sober* person that I could not dig something out of that was worth knowing. All useful facts, communicated in howsoever homely style, with your correction of grammatical construction and orthography, are of paramount importance. I am convinced that it is impossible for an editor—a single mind, to be able to amuse and instruct his readers, for years and years together, unassisted: his *pond* of thought, ideas and facts, will eventually run out — to use a homely phrase, his barrel will run emptyings; therefore, those interested in multiplying facts, and sending forth the knowledge and experience of years, in the different operations and effects of the great science of agriculture, ought to lend a hand.

You, reader — yes, you — as Nathan said to David, "Thou art the man," who can thus render some important benefit to your fellow laborer in the great battle of life; which, like the tears of the recording angel, may blot out some of your short comings, with the congratulation of saying, I have not lived in vain; a satisfaction that many, I fear, in this breathing world, who have heaped up the acres and the paltry dollars, will not arrive at and who will cease to be without being able to say, I have left one valuable fact or discovery for the benefit of mankind. Perhaps, Mr. Editor, I shall come broadly in that catagory; but if so, it sha'n't be for lack of good will.

There is a saying that Doctors never take their own medicines, and that they try it on a dog first; but with your leave, I propose to take mine and to try it on you, by looking over your monthly numbers and telling you plainly what some folks think of your articles — mechanical execution, errors of the printer, &c., &c., a kind of fire-side review, with the notions and views of one of the million.

MESSRS. EDITORS:—In your opening article for the January number, in speaking of the exhausting systems of planting and farming, you seem to be growing very *tender footed* on the subject of the "peculiar institution" of our southern brethren, in that its effects are not deteriorating and fatal to the soil it cultivates. It has been said that the foot of the slave was rank poison to the soil. This is not true, literally, and only co-relatively as a result. The system is fatal to the continuance and permanence of the soil's productibility. The cotton, rice, and sugar crops, can not at the present rates be made except by slave labor; all of these crops impoverish the soil, as there is no return — no rotation of grass, or other grain crops to enrich it; and in those warm climates, animals are not housed and fed to make manure, the land is soon exhausted, soon run down, and there is no remedy but a different system, different crops, and an intelligent population. The *pecooliar* institution must be abandoned, or new worlds discovered for its use.

Artichokes.—The article recommending that whatever is worth growing, is worth growing properly, is a truism not to be controverted, and which is applied to Horse-Radish and Artichokes, which I consider a nuisance and not worth growing at all. It would be a good operation to exchange them for Canada thistles—any thing but Red Root; and as to clearing them out yearly, it would take Father MILLER's universal conflagration to do it, and nothing short.

Wire Fence.—Mr. ADAMS' manner of getting up this fence is ingenious, simple, and cheap; but that such fences can ever prevail, for turning cattle, horses, or hogs, is hardly admissable. The wires are so minute, that they are not visible and carry no terror to a creature disposed to ramble. An animal the least frightened, unruly, or wild, would mind it no more than the "spider's most attenuated thread."

Clover.—Your Grecian correspondent labors under a most singular hallucination, in asserting that clover will not grow when sown in the spring on the wheat crop. If cast early enough, before the frosts have ceased to elevate and crumble the soil, so as to cover the seed, it never fails if the seed is good, except the occurrence of an exceeding dry May, which often kills it. He is correct as to the value of Lucerne. It is like the Quaker's horse that had but two faults — one was that he was bad to catch, and the other that he was worth nothing when he was caught. It is entirely worthless in this climate.

Wire Worm.—Mr. MOORE, in an extract you give, has come to a singular conclusion on the subject of this insect — that by the use of sulphur on his seed (a dry insoluble and inert substance,) he saved a crop on the same field upon which he lost it three years ago.

It is not well settled what time is the periodic transmutation of the wire worm *(Elater segetis.)* Some make it two and some three years in the larvæ state; consequently if a field is troubled with it one year, at the third year they have taken the *imago* or perfect state and have departed, particularly if the land was under cultivation, as there was no food or convenience for propagating their species. Their natural *pabulum* is grass roots, and in its absence, young wheat, corn, potatoes, &c. In many locations, the first crop is invariably lost that follows green sward, that has laid in grass longer than three years.

Col. B. P. Johnson.—I think you will be sustained in your commendations of this gentleman's course, as Secretary of the State Agricultural Society, as well as for his attentions to the County Societies. His address at the meeting of the Monroe Society was capital. It was the only straight out and out, practical, direct to the point address I have ever heard delivered on these occasions. *

SMALL HOLDINGS.—A small proprietor, who knows every part of his little territory, who views it with all the affection which property, especially small property, naturally inspires; and also, upon that account, takes pleasure not only in cultivating, but in adorning it, is generally of all improvers the most industrious, the most intelligent, and the most successful.—*Adam Smith.*

NEVER allow a hedge to get foul, or anything to grow in a ditch; it is a receptacle for weed-seeds, and if neglected would soon make the adjoining ground as foul as itself.

"WHAT COWS SHOULD FARMERS KEEP?"

BY WILLIAM HANFORD, JR.

Under the heading above quoted Sanford P. Chapman, in the October number of the Farmer, (Vol. IX, page 242,) has given us an able and quite an elaborate article. Undoubtedly Mr. C. has answered this question fully and correctly, so far as he offers a rule for the consideration of breeders and "judges at our Cattle Shows;" but when he comes to point to the place where "*right stock*" can be seen, in absence of the *testimony*, I, for one, shall *demur*. I do not, however, question the value of Mr. Vail's stock, "just to look at," or their ability to pay the expenses of a "good journey" for that purpose—but does his herd contain such cows as *farmers should keep?*

I have been taught in past volumes of the Genesee Farmer, that, for dairy purposes, our common stock is decidedly the best. Now, unless there has been error in my instruction, "full-blood Durhams," wherever found, are deficient in one and that the most important qualification. Beside this, the policy of farmers keeping Durham stock is questioned for other reasons,— among which, it is said, they are great consumers. In this principle, it will be observed, is involved the quality of feeding. But if Mr. Chapman will produce satisfactory information of Mr. Vail's stock, or of that cow of his, of the worth of which he says he "knows," showing the management used — the kind, quality and amount of food given, with the profits arising therefrom — he will furnish to the readers of the Farmer an article of deep interest, if not of real value. In doing so he will also present us what we all desire in our agricultural operations, viz: *facts* with *figures*— the PRACTICAL with the THEORETICAL. *Dryden, N. Y., Dec.*, 1848.

An article in last year's volume, headed "What kind of Cows should farmers keep," is worthy of serious consideration. After naming the several qualities that make a good cow, your correspondent says, he "never yet owned but one cow that came any where near suiting him," and that was a full blood Durham, for which he paid $150 in cash, and thinks her worth twice that sum. No doubt your correspondent has a fine cow; nor am I disposed to underrate that fine breed of animals, as a breed, but I do deny that their value is so much greater than any other breed. Suppose a man about commencing the dairy business, should purchase forty just such cows; it would amount to the nice little sum of $6,000. Allowing that said cows would produce thirty-five dollars worth of butter and cheese each, and you have as the product of one year $1,400.— Deduct the cost of keeping and interest on capital invested in cows, and you would have but a small income—to say nothing of the depreciation of said stock after they are seven years old, which would be full fifteen per cent. I think it is worth twenty dollars per head to keep such cows a year, which would be $800, interest $420, which sum deducted from $1,400, would leave $180.

Here comes another man, who has purchased his cows for one-fourth of said sum. They will make an equal amount of butter and cheese, and he has $4,500 to purchase land, or invest in State stocks, and is not weighed down by debt and taxation. But how stands the account: $1,400 worth of butter and cheese—deduct expenses of keeping, $800; interest on cows, $105; which makes $905 from $1,400, leaves $495; interest on capital invested, $315; these two sums added would amount to $810. I leave it for the reader to judge which of these two men would act most wisely. A. G. P. *Lyons, N. Y., Jan.*, 1849.

"LUNAR INFLUENCE"—AGAIN.

BY H.

Messrs. Editors:—In the November number of the Farmer is a somewhat squirming and rather pie-*crusty* article from the pen Mr. J. W. Dickinson, in answer to a brief communication from me, requesting information in respect to the cause of the Tides. My inquiry was made in honest sincerity and good faith, and I was not a little surprised at the style and spirit of Mr. D.'s reply. I shall not, therefore, answer Mr. D. in full, but simply make a few remarks by way of explanation. And

1st. "Modern Philosophy." Here Mr. D. and I differ in our definition of the term. He calls "Davis' Revelations," &c., "Modern Philosophy," which I call modern "humbuggery," and if you choose modern *nonsense*, with which he seems to be more familiar than I am. If he wishes to see a specimen of what I call "Modern Philosophy," in distinction from the mysteries and absurdities of former times, or the nonsense of the present age, he will find it in "Arnott's Elements of Physics," and even in most of the treatises on Natural Philosophy, now in general use.

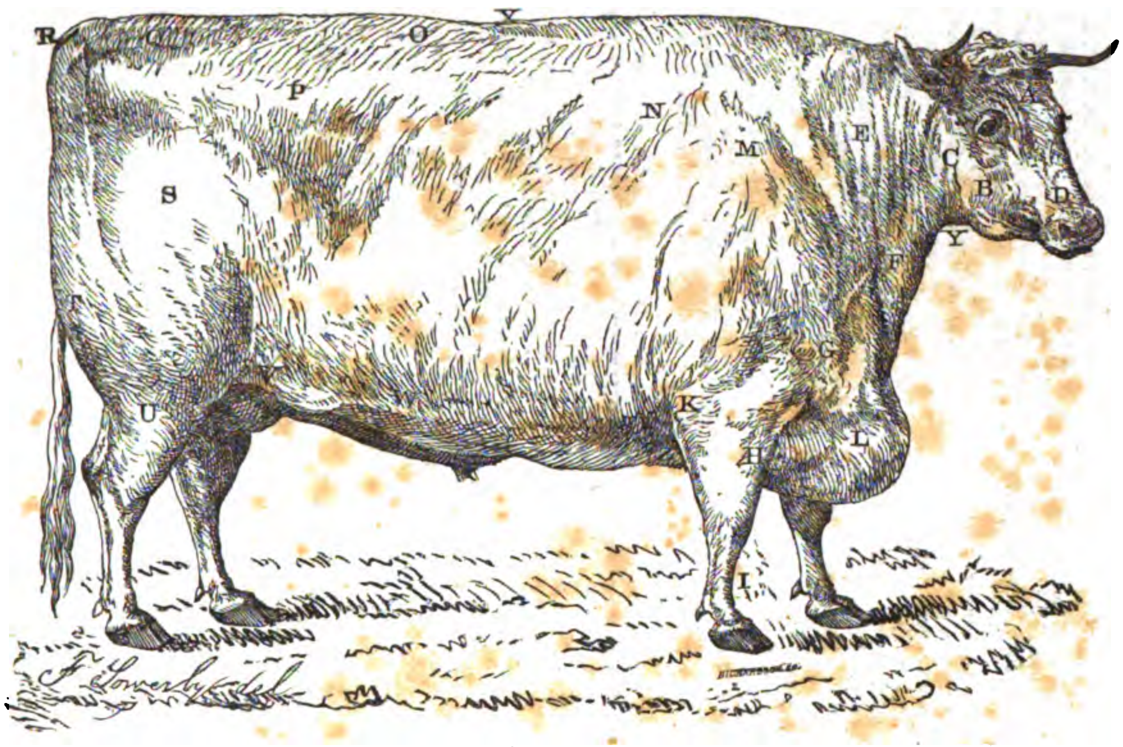
2d. Mr. D. regrets that I will not "argue the question with him." I have no occasion, and no wish to "argue the question with any one." I only asked for information; and although *not* "a farmer," am still willing to receive it from any one who can give it, even though he be "a farmer."

3d. Mr. D. asks me to "define attraction." If he will put a small magnet on a floating chip, or piece of a shingle, and place it near another piece of iron similarly situated, and watch their motion; or suspend two cannon balls by long cords, near each other, or suspend one ball near the perpendicular surface of a precipitous mountain, and watch the effect, he will know as much about the nature of attraction, as the best of us. But is it wise or *philosophical*, to deny the existence of a thing that we cannot explain? If so, we must deny the existence of every thing, even of ourselves.

4th. Mr. D.'s taunting remark about my inference from his acknowledgment of being a "farmer," is entirely uncalled for and out of place; and the still more taunting one about my attachment to old "notions," I leave without further notice. My statement, that "I adhere to the Newtonian (theory) of the tides, *for want of a better*, ought to have shielded me from any such remark, as it was an acknowledgment that I was ready to abandon it for *a better*, which "better" I hoped D. could furnish.

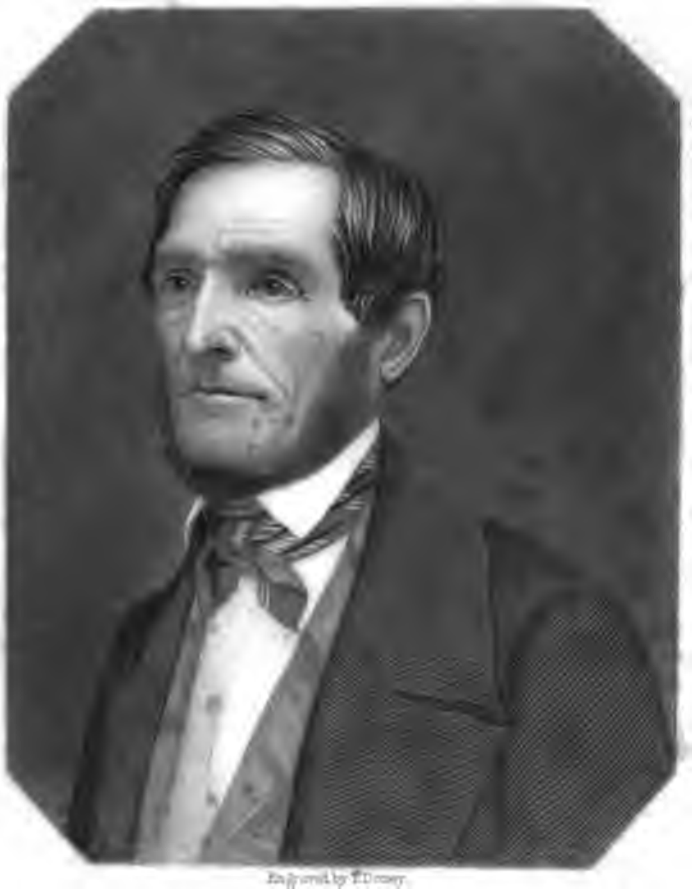
5th. Mr. D. says, "I did NOT intimate that I had a better theory." I have read again his communications in the March number of the Farmer, and can come to no other conclusion. But he denies it, and I have no more to say about it. Yet if "the laws of nature ARE ALWAYS SIMPLE," I cannot see why he has none. *"Down East," Dec.*, 1848.

Agriculture, like the leader of Israel, strikes the rock — the waters flow, and the famished people are satisfied. She supplies all, she feeds all.



EARL SPENCER'S PRIZE SHORT HORN OX.

EXPLANATION.—A—Forehead. B—Face. C—Cheek. D—Muzzle. E—Neck. F—Neck vein. G—Shoulder point. H—Arm. I—Shank. J—Gambril or hock. K—Elbow. L—Brisket, bosom or breast. M—Shoulder. N—Crops. O—Loin. P—Hip. Q—Rump. R—Pin bone. S—Round bone, thurl or whirl. T—Buttock. U—Thigh, or gaskit. V—Flank. W—Plates. X—Back, or chine. Y—Throat. Z—Chest.



Engraved by T. Doney.

Z. Pratt

Tanner.

(LATE MEMBER OF CONGRESS.)

N.Y.

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SHORT HORN CATTLE.

We propose giving, in the present volume of the Farmer, portraits of animals of the various improved breeds. It will be our aim to present figures which shall convey as correct an idea of the distinguishing points of each breed as possible, in order to instruct our young readers and others unacquainted with the subject. With this object in view, we present the accompanying portrait of a properly shaped Short Horn, with explanations of the particular points of the animal, which must prove highly interesting to young farmers.

For this engraving we are indebted to Lewis F. Allen, Esq., author of the *American Herd Book,* in which work it originally appeared. In the introduction to his work, (which contains a history of English and American Short Horns,) Mr. Allen says:

"It is a mooted question with many of our American breeders as to what *extent* short horns can be profitably substituted for our native breeds. In this, circumstances must measurably govern. So far as climate is concerned, they have flourished equally well in all the northern, middle and the upper southern states. That they will equally succeed in the southern states, including Florida, Louisiana, and Texas, provided they be supplied with an abundance of their natural food, and sheltered from the extreme heats of the summer sun, is not yet a settled problem. Time will investigate this. A good, and a productive soil, yielding an abundance of pasturage in summer, with a fair quantity of winter forage, will content them. *True* short horns are moderate consumers, compared with their capacity to yield both milk and flesh.

There is an economical question connected with Short horns, which to the American breeder has great importance. If we are to become a beef and tallow, as well as a butter and cheese exporting country, as from the complexion of late events in Great Britain, it would appear, it is of the last importance that we produce a race of neat cattle which will give a high quality of beef, and that in the greatest quantity, as well as those possessing large dairy properties. Now, no animal whatever, is more strongly developed in the choice beef and tallow-bearing points, than the short horn. To illustrate our position we present a cut of a properly shaped Short horn, with designations of the particular points of the animal. This was drawn from hints by Mr. Rotch of Otsego county, New York, than whom few have a more accurate judgment in neat cattle."

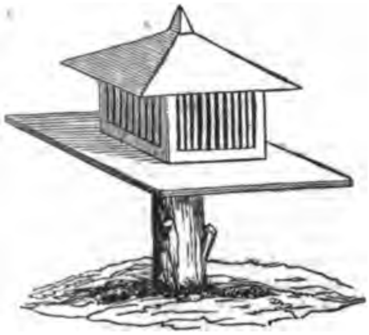
POULTRY FEEDING-HOPPERS.

BY C. N. BEMENT.

It is the practice with most farmers to feed their fowls grain, by strewing it on the ground from the hand. This is, however, considered by many as a slovenly and wasteful mode, and well calculated to invite rats and mice.

From experience we have found it more economical to keep grain constantly before them, where they can help themselves at all times; and for that purpose constructed several kinds of feeding-hoppers, but have been constantly annoyed by the depredations of rats and mice. Some of the patriarchs, grey with age, would not only help themselves sumptuously, but actually drive the fowls from their food.

Now, to obviate this difficulty, and to render them rat-proof, we present a plan, a figure of which accompanies this, which is so simple, that any man or boy who can handle a saw, a plane and a hammer, with a few nails, could make one in a few hours that would cost little or nothing.



Poultry Feeding-Hopper.

First make a platform of boards, say three feet square, then make a square sixteen inches in diameter of strips of an inch and a quarter plank, and three inches wide; nail this in the centre of the platform; saw four strips one and a quarter inches square, for the posts, which should be about eighteen inches high; nail strips of plank two inches wide to the posts at the top, to secure and steady them; then take common sawed lath, or thin strips of board one and a half inches wide, and nail them to the top and bottom, up and down, leaving a space of two inches between each slat, which will enable the fowls to insert their heads to pick the grain. The roof may be formed four square like the figure, or may be made flat, or pitched on two sides, like the roof of a house, and should be detached, so that it can be moved when grain is to be put in. Now, to make it proof against rats and mice, it will be necessary to elevate it a few feet from the ground, and this can be done by suspending it with wires, or setting it on a post firmly set in the ground, as represented in the figure. The wires being small and smooth, they could not pass down on them, and the platform projecting so far from the post, they would find it rather inconvenient to climb over the edge of the platform.

The fowls will soon learn to leap upon the platform, and feed from the grain-box between the slats. From ten to twelve fowls can feed at the same time.

This may be made self-feeding, by setting a funnel shaped box within, the small end reaching down to within half an inch of the bottom. The size or capacity may be varied according to the number of fowls kept. The foregoing is calculated for about one hundred fowls.—*Amer. Jour. of Agriculture.*

* * *

Gutta Percha—*What is it?*—This question is asked by thousands who have heard the name. It is a gum, similar to that of the caoutchouc or India rubber, but susceptible of more varied uses. It is thicker and heavier. Hose and gas pipes, boot and shoe soles, book bindings, canes, buckets, bags, cloaks, coats, and various other articles are made of it; and, altogether, it may be considered the most valuable vegetable gum ever discovered.—*Ex.*

* * *

See that all your domestic animals are properly attended to "about these days."

TO ASCERTAIN THE WEIGHT OF LIVE CATTLE.

This is of the utmost utility to all those who are not experienced judges by eye. By the following directions, the weight can be ascertained within a mere trifle: Take a string, put it round the breast, stand square, just behind the shoulder blade; measure on a foot rule the feet and inches the animal is in circumference; this is called the girth; then, with the string, measure from the bone of the tail which plumbs the line with the hinder part of the buttock; direct the line along the back to the fore part of the shoulder blade; take the dimensions on the foot rule as before, which is the length; and work the figures in the following manner; Girth of the bullock, six feet four inches; length, five feet three inches;—which multiplied together, make 31 square superficial feet; and that multiplied by 23 (the number of pounds allowed to each superficial foot of cattle measuring less than seven and more than five in girth,) make 713 pounds. Where the animal measures less than 9 and more than 7 in girth, 31 is the number of pounds to each superficial foot. Again, suppose a pig or any small beast should measure two feet in girth, and two along the back, which multiplied together, make 4 square feet; that multiplied by 11, the number of pounds allowed each square foot of cattle measuring less than 3 feet in girth, makes 44 pounds. Again, suppose a calf, a sheep, &c., should measure 4 feet 6 inches in girth, and 3 feet 9 inches in length, which multiplied together makes 15¼ square feet; that multiplied by 16, the number of pounds allowed to all cattle measuring less than five feet, and more than 3 in girth, makes 265 pounds. The dimensions of the girth and length of horned cattle, sheep, calves, or hogs may be as exactly taken this way as it is at all necessary for any computation or any valuation of stock, and will answer exactly to the four quarters, sinking the offal, and which every man who can get even a bit of chalk can easily perform.—*Chamber's Information for the people.*

* * *

Patent Safety Bridle.—Mr. Henry Seitz, of Marietta, Lancaster county, Pa., is the inventor of a very ingenious Bridle for which letters patent were recently granted, whereby it is impossible for a spirited horse to kick or run away, and perfectly safe for a lady to drive or ride. The principle on which it is constructed is to hold the horse by the application of a pully around which the reins are made to pass at the side of the horse's mouth, which enables the rider to exert a great deal of lever power to control the mouth of the animal, to check him at any moment. We consider this a very useful improvement, as with some horses, especially when they are young, the old curb when pulled makes them to rear and pitch, to the great danger of the rider. This bridle effectually remedies this evil.

* * *

Shearing or Clipping Horses.—We have seen specimens of this recently in the city, that would quite astonish the uninitiated. A long-haired, shabby-looking beast, after being a few hours under the hands of the shears, comes out with a close, smooth, shining coat, quite to the taste of the admirers of horse flesh. There are some advantages in this practice irrespective of the looks. The horse does not sweat so easily, and when once wet he dries more readily, and the tendency to colds is thereby materially lessened.—*Am. Agriculturist.*

REARING LAMBS.

Like all other young stock, lambs ought to be kept steadily growing, without getting too fat. Where a healthy, strong, and young ewe has a good range of pasture, the lamb may acquire so much fat as seriously to interfere with its thrift, when taken away and put upon its winter's food. Experienced flock masters say they have frequently lost lambs from this cause, and that when an ewe has twins, and the milk is divided between the offspring, this loss never occurs. This is an important fact for the practical man.

It is well to have the lambs accustomed to dry forage before they are put up for the winter. If good sweet hay, dry clover, or oats in the sheaf, or threshed, be thrown out to a few old sheep, surrounded by all the lambs, while the latter are in fine condition, brisk and lively, they will at once begin to nibble at the dry food, and soon will be entirely familiar with and enjoy it. If left, however, till weaned, and they have become pinched by the snows and frosts of approaching winter, and the scarcity and insipidity of autumnal forage, their stomachs are in a weak or diseased condition, they have no appetite for their new dry food, they stay away from the racks, and daily become weaker and more indisposed, and soon have become too far reduced to recover, or if they survive, it is with a constitution permanently impaired.—*Am. Ag.*

* * *

Unnatural and Injurious Over-Feeding of Animals.—At very many of the meetings and gatherings of the president, vice president, and members of council, as well as at the yearly, general, and country meetings of the Royal Agricultural Society, and, in short, at most agricultural societies, you will find this subject discussed, and correct views on it most strongly and urgently recommended, and instructions given to the judges are not to take into consideration the fatness of animals in awarding prizes to stock intended for the purpose of breeding.

In the face of these instructions what is the general result? Why, that year after year, and meeting after meeting, the premiums are still given to a most unnatural and (to breeding stock,) very injurious fatness. Fat is sure and certain to carry away the palm whenever placed in competition against rational and fitly-fed animals of every class and description, and that are in a natural and much safer condition for breeding, both as regards themselves as well as their produce, but they are not made almost immovable—most unwieldly, by their joints and sinews being, as it were, rendered of no effect by useless and injurious fat. Bear in mind that I confine my observations wholly and solely to breeding stock, and if the judges would, in awarding the premiums, take into consideration the aptness and fitness of condition for breeding, combined with shape, make, and quality, and give these their proper and right, and all-important place (even to the discarding of over-fed breeding animals,) they would be doing greater, truer, and stricter justice to the intentions and objects of the society, and confer a much greater benefit on those engaged in the breeding, not fattening (for they should be viewed and considered separately,) of animals, than by encouraging, as the awards mostly do, the great and injurious evil of feeding breeding stock so over and preposterously fat.

* * *

Never attempt to save seed from two sorts of Cabbage at the same time—they spoil each other.

Spirit of the Agricultural Press.

PROPHECY.—The Hon. JOHN LOWELL, in an address before the Massachusetts Society for promoting Agriculture, in 1818, made the following remarks in reference to the connection of chemistry with agriculture. They evince the wisdom and sagacity of an able mind:—"There are few persons who have read the late able and interesting work on agricultural chemistry, by Sir Humphrey Davy, who do not perceive its intimate connection with this important art, or who do not feel a prophetic conviction of its future usefulness." Mr. Lowell went on to say, that though he regarded this as a subject with which the practical farmer need not trouble himself, lest he should become "confused and bewildered," yet he thought there was "reasonable ground of hope, that men of leisure and science would be led to more accurate and philosophical views of agriculture, and that from their experiments their neighbors would derive great ultimate advantage."—*Cultivator.*

AGRICULTURAL PUBLICATIONS are among the most useful printed, and it is quite important to an improved system of farming, that they be widely disseminated. They add vastly to the productive wealth, comfort, and happiness of the country, and tend greatly to enlighten the minds of those engaged in cultivating the soil. It is the duty, therefore, of all to exert themselves in their dissemination. No man can well do a greater good to his country.—*Am. Ag.*

VERY TRUE INDEED.—Somebody says, when you see a man who curses when it rains, frets when a fog occurs, and smiles only when the sun shines, be sure that such a one can never bear up with fortitude against the attacks of misfortune, nor stand with equanimity the marvolous changes of our daily life.

POULTRY—*Hen and Chickens.*—A writer on this subject (and let no one say it is not an important one) in the Providence American, gives the results of his experience in economizing the time with hens, and we think them worthy of being communicated to our readers. All who are familiar with rearing chickens, know that there are very few hens that will allow newly hatched chickens to be committed to their care, when their own are a few days old. This the writer attributes to the fact that the hen has become acquainted with her own chickens, from color, marks, &c., and considers the new-comers in the light of intruders, which she too frequently punishes with death. To obviate this, he puts the first hen that hatches into a coop, and keeps her there with her chickens till another hen hatches, when he substitutes the second hen for the first, leaving the charge of the former; and when another hen hatches, she is put in place of the second, with all three broods—if the aggregate number do not exceed thirty, which he says she will take care of affectionately and efficiently.

PROFITS OF HENS.—Dr. J. Barstow, of Chicago, kept an account of the expense and income of fifty hens, for one year. The cost of keeping on corn, was about twenty-five cents for each hen. The hens averaged ninety-one eggs each. One of the editors of the *Prairie Farmer* states that he has kept forty hens the past year; that the cost was about the same as given by Dr. Barstow; but the fowls averaged only sixty-five eggs each. The fowls in both cases were confined to a yard, but one lot of them were allowed to have their liberty for a part of each day. They were fed with fresh meat occasionally.—*Cultivator.*

THE TEA PLANT IN THE UNITED STATES.—The planters and farmers of the Southern States will be gratified to learn that seven cases of black and green tea-plants, Chinese stock, have just arrived from London in the ship American Eagle, shipped by Dr. Junius Smith, during his late visit to that city. There are 500 plants, of from five to seven years' growth. All are designed by the Doctor as seed plants. A small quantity of tea-seed was brought out by him in the steamship Britannia, which was received in London overland from the northwest provinces of India. We understand the Doctor designs to proceed soon to the South, with a view of forming a plantation. More plants and seed are expected from India and China this season, and if we may judge from the progress already made, we have now the means in hand of extending tea plantations throughout such sections of our country as may be found adapted to their cultivation.—*Journal of Commerce.*

A BRIGHT plowshare is the cheapest commodity ever used by a farmer.—*Cobbett.*

IMPROVED ROAD SCRAPER.—Messrs. C. Schofield and G. J. Johns, of Albion, Illinois, have made a very useful improvement on a Scraper for making and repairing common roads, which should be adopted and employed by all our farmers in every township. It is especially useful for new settlements. The improvement consists in combining the *scoop* with a plow and having the scoop fixed to the standard by a swivel joint, so that by a catch lever connected with it, the scoop can be emptied with the greatest ease without tumbling over the scoop, which has to be done with the scrapers at present in use.

IMPROVED CIDER MILL.—At Madison, New Jersey, there is a cider mill which consumes about 1200 bushels of apples per day. The apples are not *ground*, or broken by squeezing between nuts as in the common cider mill, but they are cut into very thin slices by sharp knives around two revolving cylinders, and then pressed in a machine from which the juice comes out entirely free from the pulp and other things which are found in new cider at the old mills—the cider retaining its sweetness a longer time.

The price of apples was perhaps never lower than this year. The farmers bring them by the wagon load 10 or 15 miles, and sell them at the mill for five cents a bushel.

IMPROVEMENTS ON WINDMILLS.—Mr. Charles B. Hutchinson, of Waterloo, Seneca Co., N. Y., has recently made some valuable improvements on windmills both for self-regulating and reefing the sails. A common governor is used for the regulating of the angle of the sails to the wind, but this is employed in a most judicious and novel manner, for retaining the ends of the booms in slot when necessary, at an angle reverse to the allowing of the sails to present the square of their surfaces to the blast. This mode of self-regulation has been completely successful in practice during the most fitful windy days of this autumn.

PAGE'S PORTABLE WINDMILL.—This contrivance, constructed upon entirely new principles, is capable of producing great power with light winds, with no danger of being blown away by those that are heavier, as the sails are so constructed as to set instantaneously, and throw off any surplus that may occur. It has also a vane so arranged as to counterbalance the power used below, always keeping the wheel square to the wind. It is capable of being applied as a locomotive power—the one on exhibition having been so used, placed upon a common buggy wagon.—*Ib.*

PAGE'S PATENT PORTABLE SAW MILL.—This mill has been extensively used, and has fully recommended itself to the public. Mr. Page has made several important improvements upon it, and it is now very generally considered the very best mill extant for sawing lumber. Mr. Page (who is from Baltimore, Md.) has in his possession certificates from gentlemen of undoubted character, saying that with this machine they have cut 8,000 feet of inch boards in one day, with eight horses. He has moved his mill, after sawing 200 boards in the morning, thirteen miles in one day, and was sawing again before eleven o'clock the next morning, without any extra help other than in use at first—six horses and two men.—*N. Y. Farmer and Mechanic.*

BIG SHEEP.—It is stated that some of the sheep exhibited at the last show of the Royal Agricultural Society, were estimated to weigh as follows: Leicesters, of 16 months old, 46 lbs. per quarter; of the same breed, 3 years and 4 months old, 56 lbs. per quarter. Long-wools, (not Leicester,) 16 months old, 52 lbs. per quarter; of the same breed, 3 years and 4 months old, 72 lbs. per quarter. South-Downs, 16 months old, 36 lbs. per quarter; of the same breed, 3 years and 4 months old, 46 lbs. per quarter.—*Ib.*

THE ATMOSPHERIC CHURN OUTDONE!—The following description of a mode of churning practiced in Mexico, we think goes a little ahead of the "atmospheric" wonder: "Two tin cans are enclosed in a green cow-hide—the size to correspond to the quantity of milk. The hide, on drying, will shrink, and adhere to the cans. These cans are partly filled with milk, and placed like saddle-bags on a hard-trotting horse; a person then mounts the horse, and rides seven or eight miles into the city. The motion of the horse effects the separation of the butter from the milk, and the rider has only to pocket the cash for his butter and buttermilk, and wend his way home at his leisure."

TOOLS AND IMPLEMENTS.—Let every description of tools and implements be examined, have those requiring it repaired, and those not in use carefully put away under cover. Such attention saves both time and money.

Editor's Table.

To Correspondents.—Communications have been received, since our last, from Agricola, T. C. Peters, S. W., Horace L. Emery, *, L. Wetherell, A. G. P., Oscar Warren, I. A. Clark, A. H., D. Kingman, C. J. V., A Subscriber, H., S. C. Lee, R. H. Hoyt, M. D., S. Heston, C. H., A Young Farmer, N. W. H., H. Eaton, Nathan Marble, Buckeye, and A Friend to Ag. Improvement.

Pamphlets, &c., have been received from many known and unknown friends. If we get time to examine them, we will "report progress" in our next. We have been so constantly occupied, during the past month, with the business affairs of the Farmer, that we are also compelled to defer answers to many inquiries. Indeed, orders for the paper, requiring immediate attention, have reached us in such abundant and unexpected profusion, that we have not even found leisure to peruse the numerous complimentary notices of the Farmer which are being "thrust upon us" by our brethren of the Press. While we feel duly grateful for these favors, and strive to bear the "blushing honors" with becoming humility, we must ask the indulgence of those whose communications, inquiries, &c., are not inserted or responded to in this number, or by letter.

The Agricultural Journals for January come to us teeming with the choicest emanations of thought and experience—embracing abundant *material* from which wealth and happiness might be coined by the millions of American Farmers. Would that these journals were better appreciated and more generally read by those most designed to be benefited in their publication. At present we can only notice some changes and improvements, and one or two new recruits. The *Ohio Cultivator* is changed from a quarto of 8 to an octavo of 16 pages—a decided improvement.——R. L. Allen, Esq., author of "American Agriculture" and "Domestic Animals," (two of the best practical agricultural works ever published in this country,) has become associate editor of the *American Agriculturist;* and the January number of that always excellent publication gives evidence of the additional strength.——The *Valley Farmer* is the title of a new monthly hailing from St. Louis. Mo. It is edited by H. Gates, (former editor of the Iowa Farmer, recently discontinued,) and E. Abbott. Published by Pickering, Penn & Co.—20 pages quarto—at $1 per annum.——We regret to learn that the "American Journal of Agriculture and Science," published at Albany, N. Y,, has been discontinued for want of proper support. It was ably conducted by C. N. Bement, Esq.; but the price, ($2 per annum,) prevented the work from obtaining such a circulation as it deserved. We trust the editor will meet with abundant success in other pursuits.

Devon Stock in Michigan.—Among the published proceedings of the Kalamazoo Co. Ag. Fair, held at Schoolcraft, in October last, we observe the following item, and copy it for the benefit of our western readers:

"The executive committee were also much gratified at the exhibition of some full blood Devon Cattle by F. V. Smith, Esq. of Coldwater, Branch county, and would recommend them to the notice of breeders."

We understand that Mr. Smith's Devons were bred by E. P. Beck, of Wyoming county, from stock obtained of Wm. Garbutt, Esq., of Wheatland. Our western friends will find them worthy of attention.

Genesee Co. Ag. Society.—The Annual Meeting of this Society will be held at the American Hotel, in Batavia, on the *second Tuesday*, (13th) of February instant, at 10 o'clock, A. M.—for the election of officers and making out a premium list for 1849. A general attendance is particularly requested.

Too Much by Half.—In a notice of this journal, the Prairie Farmer says our terms are $1 per annum. "No other paper has the news." However we presume brother Wight considers it worth the amount mentioned—and he is not the first person, or editor, that has voted the Farmer "too cheap by half." He is not far wrong about its having "a large circulation"—though in proportion to the expense of publication, it probably affords the least profit, per copy, of any periodical in the country.

Immense Exportation of Cheese.—Last Friday one house in this city cleared at the Custom-House, for Europe, 16,319 boxes and 287 casks of cheese, weighing 983,445 lbs. and valued at $68,841. This is an immense shipment for one day, and by one establishment.—*N. Y. Express.*

To Advertisers.—A large number of advertisements have been received for publication in the present number, which we could not insert. We shall issue an advertising cover next month, (on a separate sheet,) and will then endeavor to accommodate all who desire to avail themselves of its advantages—providing our terms are complied with. Among the advertisements received, which we cannot publish in full, we give below an abstract of the most important ones:—

Ayreshire Cattle.—C. N. Bement, of Albany, will sell at public auction, at Three Hills Farm, 3½ miles west of Albany, on the 14th of March next, his choice herd of Ayrshire Cattle—consisting of the imported Cow *Alice*, her daughter *Fairy*, [for which 1st premium was awarded at State Fair in 1847:] *Lassie* 3 years old; *Moggie*, 2 years; *Norma*, 1 year old; and *Jenny Deans* 9 months old. Two year old bull and bull calf. Also several head of cows and heifers, a cross of Ayrshires and Durhams. Two young boars and several breeding sows of the Medley breed.

Sanford P. Chapman, of Clockville, Madison county, sends us an advertisement from which we extract as follows:—"Durham Bull *Beuna Vista* for sale. Bred by Mr. Vail; calved April 10, 1845; got by Meteor, (104 Amer. Herd Book.) Dam got, by Chas. Henry Hall's Meteor, out of Queen I, (page 219.) He possesses a first rate pedigree, is an excellent bull in appearance, and a good and sure stock getter. He is orderly, not vicious, and easily managed. He was awarded the 1st premium at the Madison Co. Show in 1848. Having another young bull I should like to dispose of Beuma Vista, as I do not need both. Price $200."

Jno. P. Jewett & Co., of Boston, send us an announcement of *The American Fruit Book*, by S. W. Cole, author of "American Veterinarian,"—to be published about the 10th of this month. Price 50 cents.

We have likewise receieved an advertisement of "A good book coming," from a publisher in New York—but as he did not even pay postage, we do not think it worth while to give his name, or the title of the work, to our hundred thousand readers.

The Hon. Lewis F. Allen's Address to the N. Y. State Agricultural Society on Wednesday evening, on resigning his place to his successor, received from the Assembly a marked compliment. A copy of the Address, on motion of Mr. Pardee, was requested for publication and distribution, in advance of the Society's volume of Transactions. This is a compliment as rare as it was deservedly bestowed.—*Albany Argus.*

Combustion.—Combustible bodies will not burn if dipped in a solution of potash or phosphate of lime, or muriate, sulphate, and phosphate of ammonia, with borax. The alkaline substances arrest the hydrogen, or prevent its combination with oxygen.

Cloth made of Pine Apple Leaves.—At Singapore in the East Indies, there is quite a thrifty branch of business in preparing the fibres of Pine apple leaf for exportation to China, where they are manufactured into cloth.

Fly in the Wheat.—The Howard District (Md.) Advocate of Saturday says "Our farmers are loudly complaining of the ravages by the fly in the wheat. In many parts of the District they say some of the fields look sear and yellow. But we think they are croaking a little too soon."

Dog Power.—The Scientific American contains a notice of a dog power, consisting of a wheel 11 feet in diameter, inside of which the dog works like a squirrel in his cage. The gudgeons turn on friction rollers. This power is applied to a circular saw, a lathe, and several other operations, such as churning, pumping and washing. It is said to be much superior to the old one so long in use for churning.

Two Crops of Raspberries the same Year.—Mr. William E. Lyman picked upwards of half a pint of raspberries from his garden in this city, the past week, being the second crop of this year's growth. The berries were of fine size and flavor.—*Buffalo Commercial.*

Pork—Use of Charcoal.—The Richmond Whig has the following: "We alluded the other day to the very general loss of pork sustained by the people in every part of the State in consequence of the weather. We would suggest to such persons, as this paper may reach in time, that the free use of charcoal upon meat which has been tainted has succeeded in many instances in restoring it."

The next Fair of the N. Y. State Ag. Society, is to be held at Syracuse, on the 11th, 12th and 13th of September.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

We are happy to hear from all parts of the Union that the cultivation of fruits is attracting universal attention. North and south, east and west, almost every individual who owns a lot of ground is alive on the subject. The emigrant who goes to the far west would rather go without money than without trees; and it is a noble idea, for what better monument could a man erect than the planting of a tree?

The question will naturally arise, how did such a sudden change come about? The Horticultural publications of the day will answer this question, and among them we will mention some of those which have been most active in the battle—"Downing's Fruit and Fruit Trees of America," "Hovey's Fruits of America," "Kenrick's American Orchardist," "Thomas' Fruit Culturist;" and among the monthly publications, "The Magazine of Horticulture," "The Horticulturist," the Albany and Boston Cultivators, and "Prairie Farmer." These publications have been and are continually passing through this vast country, like mighty engines, "clearing the way" of superstition and ignorance, and scattering broad-cast the choicest fruits in every direction; so that an individual who was but three or four years ago satisfied with a *Choke Pear*, a *Sour Crab Apple*, and a *Fox Grape*, will now have his Swan's Orange, Bartlett, Seckel, and White Doyenne Pears; Early Joe, Melon, and Northern Spy Apples; Black Hamburgh and Royal Muscadine Grapes, &c., &c.

In this great struggle for improvement the Genesee Farmer has not been an "idle spectator."—Every important advancement of Horticulture has been timely and duly noticed in its pages; and the choicest fruits have been figured and described—particularly our native varieties. In taking a retrospective glance of our past labors, however, we feel sensible that we have done but little. This is an age of improvement, and we shall endeavor to keep pace with its advancement.

The horticultural exhibitions have also been instrumental in bringing about this great changes; and our Pomological Conventions, with leaders of the first talent and experience in the land, what may we not expect them to accomplish? The interest manifested at the *first general Pomological Convention* ever held in this country, (in Buffalo,) gives us reason to hope that the spirit which moves the mass (somewhat similar to the great political excitement in times past,) will be exhibited at our future Conventions. Where and how could an intelligent individual spend a day or week more interestingly and profitably than among a choice collection of fruits, and a combination of talent only to be met with at such gatherings?

Another cause, and not the least, is the profit arising from the sale of fruits. The many articles which have appeared the past year in the public prints will be ample demonstration on this point, and therefore we forbear further comments. It will be seen, in a communication from the Editor, that there is an unfailing market for good fruits in England. If poor apples sell readily for 3 and 6 cents each, what may we not expect of choice varieties, such as the Northern Spy, Roxburry Russet, Esopus Spitzenburgh, Swaar, Pomme Gris, &c., &c.?

EDITORIAL CORRESPONDENCE OF THE FARMER.

The Season in England—Flowers, &c.—American Apples in Europe—French Pears in London Market—Vegetable and Flower Markets—Show of Smithfield Club, embracing Fat Cattle, Field Roots, Implements, &c., &c.—Gutta Percha—Glass Milk Pans, &c.

London, Dec. 14, 1848.

My Dear Sir:—As the Europa sails to-morrow from Liverpool, I thought I would send you a short gossip touching a few of the more interesting matters that have caught my attention since I arrived in England.

The winter, so far, has been remarkably mild.—The lawns are as bright and green as ours in the middle of May, and the gardens are yet gay with Roses, Chrysanthemums and Laurustinus, and other flowers. I am delighted, at every step I take, with the profusion of evergreens that fill up every little space throughout the cities. Laurels, Bays, Yews, Cypresses, Aucubas, Hollies, Junipers, Rhododendrons, Ivys, &c., clothe every wall and door yard with a verdure as fresh and luxuriant as we could hope for in the month of June. This is some compensation for the muddy streets and rainy, murky weather that continually prevails. I have not seen the sun half a dozen times since I have been here, and then only glimmering through a fog. I eat breakfast at eight in the morning, by candle-light, and dine at four in the afternoon by candle-light; we are hardly aware of its being day, till night returns again. It takes three or four days to accomplish the work of one.

Large quantities of American apples have been brought into Liverpool recently, but the most of them have been of indifferent quality, and badly gathered and picked, and hence they do not command high prices, nor do us any credit,—nor can the shippers gain by the operation. There is an unfailing market here for our orchard products, but to make the shipment of them profitable, it is absolutely necessary that select varieties be sent, that they be carefully hand-picked and packed in the best manner. One barrel will then sell for as much as three or four; and the frieght, which is the great item, will be no more on a barrel that will sell more readily for $5, than one that will bring only $2. Many of the apples I see here cried up as "nice American apples," "beautiful American apples," &c., would scarcely sell at all in our market, yet they are sold here at 3 to 6 cents each.

The English people have fairly given up growing apples for market, unless it be Codlins, &c., that come in early for cooking, and *Beaufins*, &c., for drying. They see it will be impossible for them to compete with American orchardists. Yesterday I examined two or three hundred varieties in the fruit rooms of the London Horticultural Society, and among them all there was not a single large, clear colored fine looking specimen. One would suppose, at first sight, that they were all wind-falls gathered from under the trees last August. The *Roxbury Russet*, *Fall Pippin*, and *Rhode Island Greening*, were among the best specimens, and they were not half the size we grow them. The most esteemed varieties pointed out to me by Mr. Thompson, such as *Pearson's Plate*, *Warmsley Pippin*, *Pomme Royal*, (not our Pomme Royal) *Golden Harvey*, *Sturmer Pippin*, &c., are small inferior looking things,—in size from that of a small *Pomme Gris* to that of a *Siberian Crab*, — but they are generally harder and richer than ours. The Newtown Pippin and Roxbury Russet come nearer the English taste than any other varieties we cultivate. I had some Northern Spy and Melon with me, that I have here now in London in fine condition. They have elicited the admiration of all who have seen them. There are indeed no such apples to-day in England. The Northern Spy may be sent to Covent Garden market, just as well as to Fulton or Washington markets, New York. The pears in the markets here now, are from France or the Island of Jersey. They come in half-bushel baskets, containing 50 to 100, according to the size of fruit. They are packed in very dry soft meadow hay — a layer of this hay two or three inches deep is laid on the bottom, then a layer of fruit, then another of hay, and so on to the top,—the fruits are not allowed to touch, and in this way they go any distance with entire safety. I saw at Liverpool little baskets of *Glout Morceau* and *Chaumontel*, 50 in each, sold for $3 to $4 each to the confectioners and market-women to retail.

In Covent Garden Market, which is head-quarters for all rare and fine garden commodities, I see fine *St. Germains*, (the old one,) *Marie Louise*, *Passe Colmar*, *Winter Nelis*, *Beurre Rance*, *Easter Beurre*, &c., sold at 12½ to 18¾ cents each. If we ever succeed in raising pears beyond what may be required for home consumption, they will find market and good prices here. Not one person in a thousand, I might say five thousand, ever tastes a fine pear.— There is also a fair supply of new potatoes from Holland, sold at about twenty-five cents per quart. There is plenty of Asparagus, Brussels Sprouts, Rhubarb, Mushrooms, and all other vegetable luxuries. The Flower Market is very rich. Boquets are made up very tastefully by women who buy the flowers from the Florists and make a business of preparing and selling the bouquets. You can have a nosegay for a penny — a single rose and a leaf. For a shilling (25 cents) you can have a pretty Bouquet of Roses, Primroses, Heliotropes, Asaleas, &c. Go higher, and you get Camillias, Heaths, Epacris, &c.—higher still, and you get Orange Flowers, Cape Jassimines, Cyclamens and Euphorbias; and if you offer half a guinea ($2,50) you get a gem of beauty, combining all these, arranged with exquisite taste. So much for fruits and flowers, and I find that I must close on that head.

I found on my arrival in London that the Smithfield Club was holding its Annual Christmas Show of Fat Cattle. I embraced the opportunity to see it. The animals were all enormously fat, even to a downright deformity, — in many cases huge, unwieldly masses of fat, not inappropriately termed by some, "animated oil-cake and beet-root machines." The fattening process in the case of these animals appears to be carried to an extreme; no market requires it, and no profit can result from it, nor is any expected, I believe.

The purposes of the Club are to induce experiments that will test the capacities of the various breeds for fattening, and the effects of different sorts of food and modes of feeding. It undoubtedly brings out results that will be highly useful to the breeders and feeders of animals. Those who are engaged in these experiments are able to carry them out to any extent, and the public at large have the benefit of them. No restrictions as to feed are imposed; but the articles of food must be certified, as well as the age of the animals. The oxen and steers are divided into six classes, according to age, weight, &c.; cows and heifers into three classes, according to age; sheep into ten classes, according to breed and age; pigs into four classes, according to age. In the first class of oxen and steers, three premiums, amounting to £50 ($250) were awarded; in the second the same; in the third $225, and so on. From this you will see how considerable, I ought to say how princely, the premiums are; and so they ought to be, for most of the competitors are Princes, Dukes, Earls, and other nobles.

His Royal Highness Prince Albert, the Queen's husband, is an active member of this Club, and is showing masterly skill in the breeding and feeding of various sorts of live stock. He carried off the first prize of £30 ($150) in the first class of oxen and steers, for a Hereford ox 4 years and six months old, fed on oil cake, roots, bean meal, hay, and green food. The animal was very attractive. When I saw him, three of the best artists were taking his portrait. He was a low, small animal, of a dull red color, with a white face and chest. He belongs to what is called the white faced, or new Hereford breed. There were specimens of Short Horns, Devons, Scotch, Welsh, &c., all the most perfect of their kind. The show of sheep and pigs was varied and highly interesting; but I will not trouble you now with further details.

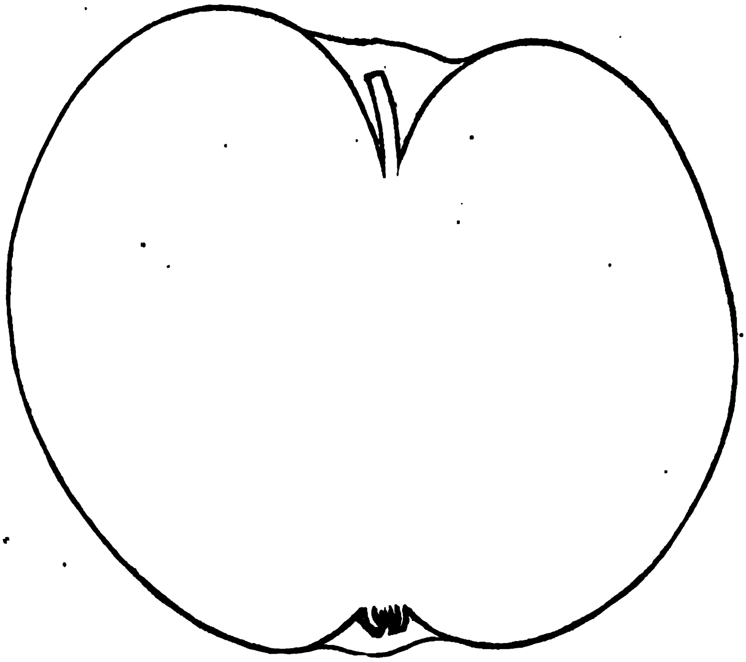
There was also a fine show of field roots. I saw extraordinary globe beets of yellow and red — Skirving's improved Swedes, some of them weighing 26½ pounds. Mr. Skirving carries on the nursery and seed business extensively at Liverpool, and continues from year to year to improve this valuable root. Our seedsmen will do well to supply themselves with his pure and genuine seed. Messrs. Gibbs & Co., of London, have the Globe Beet seed alluded to. There was a large display of implements, such as Drill Machines, Manure and Seed Drop Drills, Iron Plows and Harrows, Hay, Straw, and Chaff Cutters, Root Slicers, Oil-cake and Seed Crushers, Pipe and Tile Making Machines, and, in fact, all sorts of implements. Gutta Percha, that new and wonderful production, figured largely. An entire room was filled with articles manufactured from it. I noticed cart, carriage, and plow harnesses of all descriptions, water pipes, pails, riding whips, bowls, canes as pretty as rose-wood, and an endless variety of useful and fancy articles.

Glass milk pans are coming into general use among the dairy people. A great variety was exhibited. I saw patent sack holders on wheels, answering for a holder and barrow at the same time. Our millers and grain dealers ought to have it, and indeed farmers.

I have seen a multitude of things that I should like to tell you of; but I have already drawn this out too long. You will not be anxious to hear from me again for some time. The newspapers will tell you how the curious, impossible people of France have discarded their Cavaignacs, Lamartines, Marrasts, Ledru Rollins, and all their patriots that formed and preserved their Republic, and have placed Louis Napoleon, who has said something, but done nothing for them, almost by acclamation, in the Presidential chair. Yours, P. B.

The exhaustion of moisture by a plant is in the ratio of the surface of its leaves and stalks presented to the sun and air.

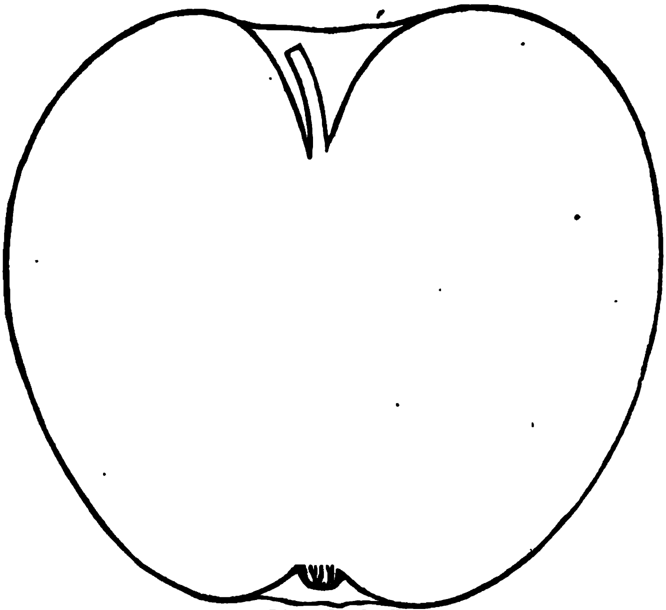
DESCRIPTION OF TWO FINE NEW NATIVE APPLES OF WESTERN NEW YORK.



Bailey Sweet.

We take pleasure in presenting our readers two now Apples of the highest excellence. We been acquainted with the **Bailey Sweet** for two years, and do not hesitate in saying that it is the finest looking and richest sweet apple of its season. **Mackie's Clyde Beauty** possesses all the good qualities of a first rate Desert Apple. It comes in at a season when good apples are very scarce, and hence it is particularly valuable. Both of these apples combine beauty and good quality.

Bailey Sweet—*Paterson Sweet.*—This is a splendid Sweet apple, received from E. A. McKay, of Naples, Ontario Co., who called it the *Paterson Sweet*, and is said by him to have been introduced from the east by Peter Paterson, of York, Livingston Co. Since then we have been informed from good authority that it originated with Calvin P. Bailey, Esq., of Perry, Wyoming Co., N. Y., and hence its name. Size very large, roundish oblong, slightly ribbed. Stalk about half an inch long, slender and in a deep cavity. Calyx closed and nearly covered with folds of the flesh that grows in around it irregularly, giving a peculiar appearance here. Skin smooth and fair, ground color pale yellow sometimes striped and mottled with bright red and stripes of darker, and some specimens entirely covered, except at the stem and eye, with bright red and clouded with small gray specks. Flesh yellow, fine grained and tender, with a rich saccharine flavor unequalled in so large a fruit. In form, color, size, &c., this fruit is admirable, and distinct from any we know. November and December. We kept some specimens until April last year.



Mackie's Clyde Beauty.

Mackie's Clyde Beauty.—A beautiful seedling Apple, from Mathew Mackie, of Clyde, N. Y. It originated in a seedling orchard of his father. The tree has been in bearing 12 years, and is a fine grower and bearer, size large, 2½ to 3 inches in diameter; form inclining to conical, broadest at the base, and tapering to the crown; slightly ribbed. Skin smooth and glossy—ground color of a pale greenish yellow, crimson in the sun, striped and mottled with light red in the shade. Stalk quite short and slender, in a deep and broad cavity. Calyx moderately deep, closed in a furowed basin. Flesh white, fine grained, juicy and tender, with a splendid sub-acid flavor. In use October, November and December. This apple is far better than the Autumn Strawberry and keeps later. Indeed, taking size, beauty and quality into the account, it must soon take its appropriate rank among the very best.

THE EUSTIS APPLE.

BY H. EATON.

Mr. Editor:—I see in the February number of the Farmer, (Vol. IX, p. 58,) a notice of several New England apples, one of which is the '*Eustis.* You say you believe it originated on the farm of **James Eustis**, Esq., of Southboro, Mass., which is a mistake, as it originated on the farm of **Francis Smith** of South Reading, one of our first settlers, and is known here by the name of '*Ben Apple.* It is thus noticed in a poem delivered by the Hon. **Lilley Eaton** at a Bi-centennial Celebration of the town of Reading in 1844:

> " A son of Francis, Ben, by name,
> First raised that apple, known to fame,
> So juicy, rich, of flavor fine
> That still for him is called the 'Ben.' "

It is one of the best apples that we have in New England; a late fall or early winter apple, but I have a friend that says he keeps it until July. It has been introduced of late years into Essex and Middlesex county nurseries quite extensively by a distinguished fruit culturist, **James Eustis**, Esq., of this place—hence the name of *Eustis.* *So. Reading, Mass. Jan.*, 1849.

Preserving Buds and Grafts.—The mode suggested by **T. G. Yeomans** of Walworth, N. Y., of preserving the scions of fruit trees in moist saw-dust, has proved superior to any other. It is better than damp moss in the facility with which the scion may be perfectly embedded in it, leaving no interstices, and it excels most sand in being lighter, more spongy, and entirely free from a grit which may injure a knife. We have without any difficulty preserved scions, which were cut in the summer, for budding, till the following spring, and inserted them as grafts with entire success; and we have kept winter-cut grafts till midsummer perfectly fresh, and employed them successfully in budding. A bushel of saw-dust will retain its moisture for many weeks nearly unaltered; but water must not be applied too copiously, or water soaking and decay will be the result. The north side of a building, or a cellar, is the best place.—*Farmer & Mechanic.*

M. Masson, the head gardener at the Luxembourg, has lately grown a new root called the Ulucco, which can very well it is thought, replace the potato. It originally comes from Peru, and grows perfectly well in the open air; the flavor is very nearly the same as that of the potato. In addition, the part above ground furnishes a very agreeable vegetable, something like the bean in flavor. Three crops of the green part can be obtained the same season.—*Paris Paper.*

The Melon Apple.—Among the remarkably fine fruits shown at the Pomological Convention in New York, some specimens of this new apple, described in our last volume, were greatly admired. They were from Rochester and Macedon, N. Y. Its beauty, as well as its unusual juicyness and freshness of flavor, will make it much sought after as a dessert fruit.—*Horticulturist.*

At Cheshire, Mass., there is an apple tree measuring thirteen feet in circumference, which has borne from ninety to one hundred and ten bushels of apples in a season.

Proceedings of Agricultural Societies.

N. Y. STATE AGRICULTURAL SOCIETY.

The Annual Meeting of this Society, held at the Assembly Chamber in Albany on the 17th and 18th of January, was well attended by delegates from various sections of the State. The proceedings were very interesting, and characterized throughout with much harmony and unanimity; but we have only room to give a synopsis of the most important.

The Society designated **Syracuse** as the location of its next Annual Fair—provided security be given to the satisfaction of the Executive Committee, that the local expenses of the Fair, (not exceeding $3,500) be discharged by the inhabitants of that city.

Officers of the Society for the ensuing year were elected as follows:—

President—**John. A. King**, of Queens.

Vice Presidents—1st district, Jas. Monroe of New York; 2d, Saxton Smith, of Putnam; 3, E. P. Prentice, of Albany; 4, Le Roy Mowry, of Washington; 5, Wm. Fuller, of Onondaga; 6, David Maine, of Madison; 7, John Delafield, of Seneca; 8, Henry W. Rogers of Erie.

Corresponding Secretary—B. P. Johnson, of Albany.

Recording Secretary.—John McD. McIntyre of Albany.

Treasurer—Luther Tucker, of Albany.

Executive Committee—J. B. Burnett, of Onondaga; P. N. Rust, of Onondaga; Henry Wayne, of Oneida; J. J. Viele, of Rensselaer; Samuel Cheever, of Saratoga.

PREMIUMS AWARDED.

On Farms.—1st premium to H. F. E. Foster, Lakelands, Seneca co., silver cup, value $50. (Hon. P. Crispel, jr., of Ulster, having received the 2d premium last year, and being assigned the same position this year, the certificate of the Society and a set of transactions is awarded, pursuant to the rules of the Society.) 2d, E. C. Bliss, Westfield, Chautauque co., $30; 3d, McCullock & Kirtland, Cantonment farm, Greenbush, $20; 4th, John Carpenter, Wales, Erie county, Set Transactions.

Experiments for three years, with successive crops, to test the value of manures.—W. D. Osborn, Port Byron, $20

Management of Fine Wooled Sheep.—Hon. D. S. Curtiss, Canaan, Col. co., $50. J. S. Randal, Clay, Onon. co., statement recommended for publication.

Farm Crops.—*Winter Wheat*, *2 acres.*—1st, Amos Miller, Vernon, Oneida co., 44 bush. per acre, $20; 2d, Ira Apthorp, Riga, Monroe co., 43 26-60 bush. per acre, $15; 3d, E. C. Bliss, Westfield, Chau. co., 43 bush per acre, $5.

Indian Corn, 2 acres.—1st, Hon. P. Crispel, Hurley, Ulster co., 90-5 bush. per acre, $20; 2d, Benj. Enos, De Ruyter, Madison co., 89-14 bush. per acre, $15; 3d, Levi F. Marshal, Vernon, Oneida co., 86-38 bush per acre, $5; Wm. Wright, Vernon, Oneida co., 114-36 bush per acre. (Mr. Wright had only one acre measured; as by the rules of the Society two were required, no premium could be awarded. From a statement furnished by Mr. Wright, it appears he had in the same field about ten acres, of which the yield was nearly equal to the acre measured.)

Barley, *2 acres.*—1st, Melos Adams, Martinsburgh, Lewis co., 62½ bush. per acre, $15; 2d, Elisha M. Bradley, East Bloomfield, Ontario co., 60-9 bush. per acre, $10; 3d, Benj. Enos, De Ruyter, Madison co., 54-25 bush. per acre, $5.

Oats, 2 acres.—1st, Elisha M. Bradley, East Bloomfield, Ontario co., 89½ bush. per acre, $15; 2d, Daniel Jenison, Galen, Wayne co., 87½ bush. per acre, 10; 3d, Benj. Enos, De Ruyter, 86½ bush. per acre, 5.

Beans, 1 *acre.*—1st, E. C. Bliss, Westfield, Chautauque co., 33½ bush. per acre, $10.

Timothy Seed.—E. C. Bliss, Westfield, Chautauque, $5.

Flax.—E. C. Bliss, Westfield, 1 acre 24 rods, 18½ bushels seed, 431 lbs. lint, $5.

Root Crops.—*Potatoes for table use.*—1st, Samuel H. Church, Vernon, Oneida county, 269½ bush. per acre, $15; Wm. Newcomb, Pittstown, Rensselaer co., experiments, 10.

Mangle Wurtzel, ½ *acre.*—1st, John Row, Riga, Monroe co., 1489 bush. per acre, at 50 lbs. per bush., $8.

Carrots, ½ *acre.*—1st, Wm. Risley, Fredonia, at the rate of 1081 bush. at 50 lbs. per bush., $8.

Ruta Baga, 1 *acre*.—1st, Joseph Hastings, Brunswick, Rensselaer co., 1400 bush., at 50 lbs. per bush., $10.

Butter Dairies,—1st, John Holbert, Chemung, silver cup, value $50.

Butter.—1st, John Holbert, Chemung, $15; 2d, Hon. H. C. Tuthill, Cayuga, 10. (The above butter, comprising 5 tubs, was sold readily to gentlemen in this city at 25 cts. per lb., and had many more been exhibited of like quality the same price would have been paid.)

Fruit.—*Seedling Winter Apple.*—1st, Chas. Lee, Penn Yan, Yates co., Wagener Apple, $5 and diploma.

An analysis of Indian Corn, for which the Society had offered the sum of $300, was presented by Jas. H. Salisbury, and the same has been referred to a committee for examination, and their report will be announced as soon as received.

Asa Fitch, M. D., of Salem, Washington county, has finished his survey of that county, for which the sum of $200 was appropriated, and it will be received in time for the transactions to be submitted to the Legislature.

Designs for Farm Dwellings.—F. R. Elliot, of Cleveland, Ohio, presented a design of a farm dwelling with description, plan, and elevation, which were examined and are entitled to special commendation, and, although no premium was offered the present year, a diploma and silver medal is awarded. J. W. Ball, of Exeter, presented a description and plan of a farm house, which was very much approved, and a diploma is awarded.

EXHIBITION OF FRUITS.

From out of this State.—Montreal Horticultural Society, 20 choice varieties. Contributors, J. Frothingham, Esq., W. Lunn, Mrs. McIntosh, G. Shepherd.

Cleveland, Ohio, F. R. Elliott and Prof. J. B. Kirtland, 16 varieties; J. Gallup, 17.

J. C. Holmes, Esq., of Detroit, forwarded from A. C. Hubbard, Troy, Michigan, 15 varieties, and from Judge Hubbard, Plymouth, Michigan, 8 varieties.

Michael Gander, of Canada West, by Master Cleveland Allen, of Black Rock, 10 varieties.

The thanks of the Society were tendered to each of the contributors as well as to the Montreal Horticultural Society, and the Secretary was directed to forward to each the Diploma of the Society.

From our own State.—J. H. Watts, Rochester, fine specimens of the Northern Spy, and a beautiful painting of this fine fruit, and through Mr. Watts, from the following contributors: Thomas Johnson, Brighton, 5 varieties; H. R. Brown, Greece, 7; H. Hooker, Brighton, 11; C. K. Adams, Ogden, 6; T. Rhoorback, Greece, 12; J. C. Campbell, Rochester, 6. C. Paulk, Honeoye Falls, Seedling Pear.

John Delafield, Oakland, Newtown Pippins, and from Waterloo, through Mr. D., 24 varieties; from Tyre, 11; Romulus, 3; Junius, 1 variety, the King Apple.

Judge Miller, Rochester, 2 varieties Winter Pear.

John Donallan, Greece, Monroe county, 7 varieties Apple.

Joseph Cary, Albany, Isabella and Catawba Grapes, very fine and as fresh as when picked.

B. Hodge, jr., Buffalo Nursery, 5 varieties and Stannard Seedling Apple.

Ellwanger & Barry, Mt. Hope Nurseries, fine specimens of Northern Spy and Melon Apples.

W. R. Coppock, Buffalo, 4 varieties.

B. P. Johnson presented, (from Cayuga co.,) 5 varieties.

Justus Harwood, United Society of Shakers, Niskayuna, 4 varieties. Samuel Rose, same Society, Watervliet, 6 var.

Herman Wendell, M. D., Albany, 4 varieties Winter Pear; 1 Apple, and 5 Painting Seedling Cherry.

T. C. Peters, Darien, Genesee county, 14 varieties.

Lewis F. Allen, Black Rock, 6 varieties apples.

H. Snyder, Kinderhook, 8 varieties.

Wilson, Thorburn & Teller, 13 var. Apple, 2 Pear.

A. Marks, Greene county, 4 varieties.

Dr. J. M. Ward, Albany, 7 var. from his farm in N. J.

J. M. Lovett, Albany, splendid Bouquet of natural grasses.

Fred. W. Lay, Greece, Monroe co., by J. Alleyn, Rochester, 12 varieties Apple. W. D. Osborn, Port Byron, 2 var.

James Wilson, Albany, splendid display of Camelia-Japonicas, &c., in full bloom.

Prof. Emmons, Albany, beautiful specimen of Painting of Currants. Hon. F. Bellinger, Herkimer, Middle Apples.

P. H. Warner, Columbia, Herkimer co., do.

Sheldon Goodrich, Aurelius, Cayuga co., 8 varieties.

A beautifully arranged box of Indian Corn, by Mrs. B. B. Kirtland, Greenbush.

The thanks of the Society were tendered to the Contributors, and a volume of Transactions to each.

Ladies' Department.

BOTANY.—FRUIT AND SEED.

[Continued from page 30]

The Fruit.—The ultimate object of the whole vegetable organization appears to be the production of fruit; which is the agent through which the reproduction of the species is accomplished. After the seed is perfected in annual plants, they soon wither and die: the flower always precedes the fruit, and is necessary to its development and perfection. The fruit consists of two parts, viz: the *pericarp* and the *seed*, or the seed-covering and the seed: the pericarp is wanting in some plants, but the seed is essential in all. In the coniferous plants, as the pine spruce, &c., the seed is naked and destitute of the pericarp.

Fig. 1.

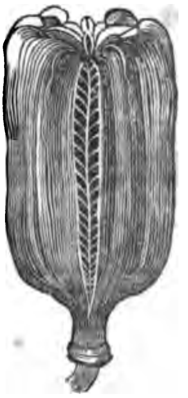
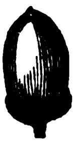
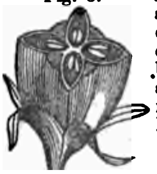


Fig. 2.



The **pericarp** is the part which envelops the seed, whatever be its substance or structure. Fig. 1. In the peach and plum, this is a fleshy, pulpy substance,—in the oak and walnut, a dense hard shell: (fig. 2.) thus the structure and composition of the pericarp varies in different plants, from a soft watery pulp to a dense shell. The process of the ripening of fruit consists of certain chemical changes produced by the action of light, heat and air, and perhaps other agents. Pericarps have received specific names, according to their form and structure: that of the pea and bean is called a pod,—that of the walnut & butternut is called a nut,—that of the apple and pear, a pome,—that of the currant and whortleberry, a berry, &c.—Fig. 3.

Fig. 3.



This figure represent the pericarp, or seed capsule of the œnothera.

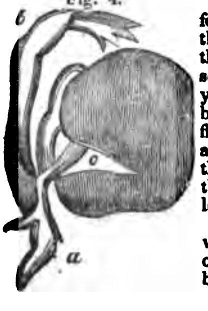
The Seed.—The seed contains the rudiments of a new plant, and is the final product of all the complicated and beautiful processes of vegetation. The essential parts of the seed are, the *integuments*, the *albumen* and the *embryo*.

The *integuments* are composed of several distinct layers, which constitute the immediate coverings of the other parts.

The *albumen* lies next to the integuments, constituting the principal bulk of some seeds; it is a whitish substance composed mainly of starch, which, by the chemical changes which it undergoes during the process of germination, serves to nourish the embryo plant.

The *embryo* comprises all the rudiments of the new plant: it consists of three parts, viz: the *radicale* the *plumule*, and the *cotyledon*.

Fig. 4.



The *radicale* is the part which forms the root,—the *plumule* forms the ascending portion of the plant,—the *cotyledon* is the bulky part of seeds, and forms the first leaves of young plants, which in the garden bean, cucumber, &c., are thick, fleshy and oval, when they first rise above the surface of the ground; these support the plant and perform the function of leaves until the proper leaves are formed.

[This figure shows an embryo with its plumule and radicale developed from the cotyledon: a, radicale; b, plumule; c, cotyledon.]

* * *

Heroic Wife.—One of the officers of Col. Washington's troops, in the expedition to the wilderness to California is accompanied by his wife and child. Who but an American woman would brave the perils of the Far West to be by her husband's side?

Mothers, strive not so to educate your children that they may be considered prodigies of learning, at the expense of health, perhaps life. Let mental and physical education go hand in hand—let health and knowledge embrace each other.

Female Education.—It was a judicious resolution of a father, as well as a most pleasing compliment to his wife, when on being asked what he intended to do with his girls, he replied; "I intend to apprentice them all to their excellent mother, that they may learn the art of improving time, and be fitted to become, like her, wives, mothers, heads of families, and useful members of society." Equally just, but bitterly painful, was the remark of the unhappy husband of a vain, thoughtless, dressy slattern: "It is hard to say it, but if my girls are to have any chance of growing up good for anything, they must be sent out of the way of their mother's example."

A Good Daughter.—A good daughter! There are other ministers of love more conspicuous than she, but none in which a gentler, lovelier spirit dwells, and none to which the heart's warm requitals more joyfully respond. There is no such thing as a comparative estimate of a parent's love for one or another child. There is little which she needs to covet, to whom the treasure of a good child has been given. But a son's occupation and pleasure carry him abroad, and he resides more among temptations, which hardly permit affection that is following him perhaps over half the globe, to be mingled with anxiety, until the time when he comes to relinquish the shelter of his father's roof for one of his own, while a good daughter is the steady light of her parent's house.—*Mary Mowatt.*

Science in the Kitchen.—Professor Liebig, in a letter to Prof. Silliman, says: —"The method of *roasting* is obviously the best to make flesh the most nutritious. But it does not follow that boiling is to be interdicted. If a piece of meat be put into *cold* water, and this heated to boiling, and boiled until it is 'done,' it will become harder and have less taste than if the same piece had been thrown into water already boiling. In the first case the matters grateful to the smell and taste, go into the extract—the soup; in the second, the albumen of the meat coagulates from the surface inward, envelopes the interior with a layer which is impregnable to water. In the latter case, the soup will be indifferent, but the meat delicious."

Corn Bread.—We are in the daily habit of eating corn bread made after the following recipe, by our good landlady, Mrs. Norton, of Astoria. It is equal to anything we ever tasted: — To one quart of sour milk add two teaspoonfuls, well stirred in, of finely pulverised salæratus, two eggs well beaten, one tablespoonful of brown sugar, and a piece of butter as large as an egg. Salt to suit the taste, and then stir in the meal, making the mixture about as stiff as for pound-cake. Now comes the great secret of its goodness. *Bake quick*—to the color of a rich light-brown. Eat it moderately warm, with butter, cheese, honey, or sugar-house molasses, as most agreeable to the palate.—*American Agriculturist.*

Boys' Department.

A WORD TO BOYS AND YOUNG MEN.

An intelligent farmer remarked to us, a few days ago, that we "must talk to the boys, the young men of America, about increasing the circulation of this journal. They are the ones who are to be benefitted by the dissemination of books and papers devoted to agriculture and horticulture—for they are soon to cultivate the farms and manage the estates of their fathers. The 'old heads'—men of forty years of age and upwards—do not like to begin improvements in the decline of life, but prefer to continue in the track of their ancestors. In this age of progress, however, those farmer's sons who are entering upon active life, must avail themselves of the aid afforded by science and experience, or be and continue in the rear—a reproach to the age and their profession."

There is much good sense in the remarks of our friend, and we commend them to the careful consideration of our young readers. The great improvements being introduced will be adopted by the shrewdest and wisest, who will thereby realize profit; while those who, through either ignorance or prejudice, continue in the *old track*, will be losers. But a great many of the boys and young men of America are thinking and acting aright. We have now before us letters from several of them, the contents of which convince us that there is an increasing desire to cultivate the *mind* as well as the *soil*, and at the *same time*. They are doing much to increase the circulation and usefulness of the various agricultural journals of the country. The following letter from a young man in Erie county, N. Y., speaks to the point on this subject. Had we space, we could give letters from still younger friends (some only 15 years of age,) residing in different and distant sections of the country, who are actively engaged in disseminating books and periodicals pertaining to agriculture, horticulture, &c.

Mr. Moore:—I commenced taking your valuable paper when I was 17 years of age, and have now taken it three years, and hope to be always blest with that privilege.—Considering the importance of such a paper to the agricultural portion of community, I have embraced every opportunity in order to obtain as many subscribers as possible; and although I met with many prejudices it only increased my ambition—for I know that the Genesee Farmer is one of the sunbeams which will eventually melt the ice of prejudice that has so long bound our country in relation to Scientific as well as Practical Agriculture. And I think, if the time has not already come, it is not far distant, when the name of *farmer* will be crowned with many honors.

I have increased the number of subscribers from 17 (which I think was the number taken the past year,) to 45—and, with the hope of getting more, I remit for fifty copies.

Oscar Warren."

PREMIUM ARITHMETICAL QUESTIONS.

BY I. A. CLARK.

Friend Moore:—I have noticed in some of the late numbers of the Farmer arithmetical questions for farmer's sons; and as some may have leisure during the long winter evenings to solve a few more, I send you the following. Some hard nuts for farmer's boys to crack:—

$5 *Premium.*—On the side of a mountain grew a lofty fir, which, being broken by the wind but not severed, the top [C,] struck below the foot of the tree [B,] 50 feet, and a right line [B, E,] from the base of the tree to the body is 30 feet. What is the length of the pieces—the height of the tree [B, C,] being 150 feet?

$3 *Premium.*—In two right angled triangles A, B, E, and D, B, C, right angled at B, we have the side A, B, = 40, B, C, = 50 and D, E, = 30; required D, B, and B, E.

$2 *Premium.*—If 7⅓ oxen eat 4⅓ acres of grass in 2 weeks, and 12 oxen eat 4 2-5 acres in 5 weeks, how many oxen will eat 60 acres in 8 weeks? — the grass being at first equal on every acre and growing uniformly.

The above questions are found on the 176th page of the "Prussian Calculator," and the premiums for the best solutions will be paid in books. The solutions can be sent to your office or to my address, "Lakeville, Livingston Co., N. Y." Yours truly, ISAAC A. CLARK.

ARITHMETICAL QUESTIONS.—We wish those who furnish us with Questions for this department not only to make their questions perfect, but to furnish us with the answers, as no question will be inserted unless the answer accompanies it.

BOYS, if you would be *respected,* try to BE what you would have others think you are — if you would be *happy* yourselves, try to make others happy.

Books on Agriculture, &c. — The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

American Farmer's Encyclopedia. $3 50 in leather—cloth $3.
American Shepherd, by Morrell. $1.
American Agriculture, by Allen $1.
American Poulterer's Companion, by Bement. $1.
American Veterinarian, by Cole. 50 cents.
Buist's Kitchen Gardener. 75 cents.
Buel's Farmer's Companion. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Downing's Fruits and Fruit Trees of America. $1 50.
Domestic Animals, by R. L. Allen. Cloth, 75 cts.; paper, 50 cts.
Farmer's and Emigrant's Hand-Book. $1.
Fruit Culturist, by J. J. Thomas. 50 cents.
Gardener's Farmer's Dictionary. $1 50—leather, $1 75.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Loudon's Ladies' Flower Garden. $1 25.
Liebgig's Agricultural Chemistry. (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chemistry, (pamphlet editions.) 25 cents each
Parson's on the Rose. $1 50. Prince on the Rose. 75 cents.
Rural Economy, by Boussingault. $1 50.
Stable Economy, by Stewart. $1.
Scientific Agriculture, by Rodgers. 75 cents.
Smith's Productive Farming. 50 cents.
Treatise on Milch Cows. 38 cts. Treatise on Guano. 25 cents.
Youatt on the Horse, (new edition.) $1 75.
Youatt on the Pig. 75 cents.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired.

Address to D. D. T. MOORE,
Jan. 1, 1849. Rochester, N. Y.

Ketchum's Mowing Machine.—*Patented July* 10, 1847.—The undersigned, sole proprietor of the above machine in the States (among others) of Ohio, Michigan, Indiana, Kentucky, Tennessee, Virginia, Maine, New Hampshire, Vermont, Rhode Island, &c., and of the counties of Dutchess, Columbia, Greene, Washington, West Chester, Saratoga, Delaware, Albany, Rockland, Schenectada, Richmond, Livingston, Oneida, Monroe, Rensselaer, Otsego, Wayne, Tompkins, Chemung, Broome, Steuben, Hamilton, Montgomery, Putnam, Warren, Onondaga, Niagara, Cattaraugus and Chautauque, in the State of New York, now offers it to the public with the utmost confidence in its success.

During the past season it has been perfected and thoroughly tested. During each day of the late State Fair, at Buffalo, its operation was witnessed by hundreds, and the perfect manner of its cutting universally acknowledged.

The subscriber has also purchased the right of "Pease's Improvement on Reaping Machines," (patented Nov., 1848.) which improvement consists in a platform attached to the machine (as represented in the cut,) and from which the grain is raked off by the driver of the team, by means of a lever—thereby throwing off the grain entirely out of the track of the machine in its next turn round the field, rendering one man only necessary for its management, and leaving the grain in the proper sized bunches ready for binding.

The attachment of this "rake off" (the expense of which is $25 only,) enables the farmer to cut his hay and grain with the same machine.

Orders for the purchase of rights or for machines, directed to the subscriber at Buffalo, N. Y., will meet with attention.

[2-3m*] S. W. HAWES.

Scions of Choice Fruits.—Scions of all the leading varieties of fruit can be furnished by the subscribers. Money enclosed by mail with order will receive prompt attention.

ELLWANGER & BARRY.
Mt. Hope Nurseries, Rochester, Feb. 1, 1849.

Scientific Agriculture, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to practical Agriculture: by M. M. RODGERS, M. D., with the approval and assistance of several practical and scientific gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and younger agriculturists."—*Prof. Chester Dewey, Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N. Y. Farmer and Mechanic.*

"It appears to be exceedingly well adapted for the purpose of instruction. It is concise and plain—neither too much nor too little."—*Hon. Zadock Pratt.*

ERASTUS DARROW, Publisher and Bookseller,
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally. [1-1t*]

Genesee Seed Store and Ag. Warehouse—*Irving Hall, opposite the Eagle Hotel, Buffalo st.*— Having purchased the Agricultural and Seed department of Messrs. NOTT, ELLIOTT & FITCH, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of *Imported and American Field and Garden Seeds,* and a large assortment of the most approved *Implements and Machines* used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

Straw and Hay Cutters.—We keep all the approved patterns of Straw Cutters, and would especially invite particular attention to our assortment of Ruggles, Nourse & and Mason's Patent, to which was awarded the 1st Premium at the late State Fair at Buffalo, and for which we are the sole agents in Rochester.—There are 14 sizes of this cutter, varying in price from $10 to $28.

Corn Shellers.—All the different sizes of Burrall's celebrated Sheller. Also, Clinton's and other approved patterns.

Clover and Timothy Seed for sale.

Rochester, Jan. 1, 1849. RAPALJE & BRIGGS.

Agricultural Warehouse and Seed Store at Buffalo.—At the request of numerous friends, we have opened an Agricultural Warehouse and Seed Store, and have made such arrangements as will enable us to keep on hand a large and full assortment of implements of any useful kind.

We have also arrangements for Trees and Seeds equal to any other establishment in the Union. Orders and patronage solicited. Manufacturers are requested to send us samples of their implements and machines. T. C. PETERS & BRO.,
Corner Washington and Exchange-sts.
Buffalo, Jan. 1, 1848. [1-5t]

Albany Agricultural Warehouse and Seed Store.—The subscriber being a sufferer by fire, in common with a large portion of the citizens of Albany, (having lost his store and stock on the 29th of October last,) has secured for a term of years the new and extensive store, No. 369 Broadway, or old Market-street, a few doors south of the Post Office. This store being 145 feet deep and four stories high, is much larger than his former one, running through from Broadway to the Canal Basin; and Broadway being the principal thoroughfare in the city between the Boat Landings and the Depots, the location is readily found. These advantages, with the increased facilities, will enable him to transact many times the business heretofore done by him, and more convenient for the trade generally.

In connection with these changes, he is erecting an extensive manufactory in the central part of the city, sufficiently large to accommodate over one hundred mechanics, and a proportionate amount of labor-saving machinery, which will enable him at all times hereafter to execute orders with despatch. A continuance of the very liberal patronage heretofore bestowed upon his establishment is solicited. H. L. EMERY.
January 1, 1849.

Mt. Hope Garden and Nurseries, Rochester, N. Y.—The proprietors of this Establishment solicit the attention of Amateurs, Horticulturists, Nurserymen and dealers in trees, to their present large stock of well grown, thrifty and healthy FRUIT TREES — comprising the very best varieties of Apples, Pears, Peaches, Cherries, Plums, and all other fruits. Their stock of *Dwarf Pears, Apples & Cherries,* for garden culture, is the largest in the Union.

The stock of Ornamental Trees and Shrubs is also very large, and can be furnished at low prices. Also, *Hedge Plants,* such as Buckthorn, Privet, Osage Orange, Norway Spruce, Hemlock, Red Cedar, American Arbor Vitæ, &c., &c.

All orders promptly attented to, in the best manner. Catalogues forwarded to all *post paid* applicants.
Jan. 1, 1848. ELLWANGER & BARRY.

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Market Prices of Agricultural Products.

New York, Jan. 23, 1849.

Flour and Meal.—Fair business in flour. Transactions reach 4000 at $5,50 a 5,65, for common to desirable. Not easy to get fair parcels below 6, 56—included were 500 bbls. New Orleans at $5,50—pure sold at $5,87a6. Meal $3 for Jersey. Rye Flour $3,25 a3.37½.

Grain.—Nothing doing in wheat, except small parcels Long Island at $1,08a1,10. Corn in moderate demand—sales 15.000 bu. at 57a58 for N. O. and new white—69 for old, and 64a65 for yellow. Oats 35a36.

Provisions.—In Pork not much movement—Ohio is $12,50a13,50—sales 400 bbls. state at $12,50a14 and 150 bbls city prime at $13,50. Beef steady, with sales 300 bbls. at $12,50a13 for mess. Lard 6½a7. Pickled meats quiet. Sales 20,000 pounds greese Lard at 5½. Dressed Hogs $6a6½.

Tallow—sales 20,000 lbs. at 8½, cash.

Ashes dull—small sales at $6,75 for Pots. Pearls $7,87½.

Cotton—business to fair extent at steady prices, with sales 1600 bales. Fair upland 7½a7½—Orleans 7½a8.

Rochester, Jan. 23, 1849.

Flour $5,50. Wheat $1,15. Corn 44 cts. Oats 25 a 28. Rye 53c. Barley 50c.

Provisions.—Pork in hog $5.25—mess $13a14. Beef, cwt. $3.50a $4. Hams 7 cts. Butter 12a15 cts. Cheese 6a6½ cts.

Seeds.—Clover $3,50a4. Timothy $1,25a2. Flax $1.

Bound Volumes of the Farmer.

THE NINTH VOLUME OF THE FARMER, for 1848, just completed, and for sale bound or in numbers, as preferred. It contains a larger amount of matter pertaining to Agriculture and Horticulture than any similar work of the same price ever published—and is illustrated with OVER EIGHTY ENGRAVINGS Price, 62½ cents bound in boards and leather—or 50 cents in marble paper, with cloth backs.

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THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

The Tenth Volume of this Journal will commence on the 1st of January, 1849. In making this announcement to his Agents and the Farmers and Fruit Culturists of the country, and again asking their support in behalf of the work, the Publisher has the satisfaction of stating that the Genesee Farmer now has a circulation EXCEEDING, BY SEVERAL THOUSAND, that of any similar periodical published in America. This fact, alone, furnishes abundant evidence of the *real value* and *superior merit* of the work—for no journal, however cheap, can become and continue so universally popular, unless actually WORTHY of the substantial support of an intelligent community.

The Genesee Farmer is, beyond dispute, *the cheapest Agricultural and Horticultural Paper in the World!*—and the Proprietor is determined to make it the NEATEST and BEST. We confidently ask for it that support which it *merits* from the Farmers, Gardeners and Fruit Culturists of the United States.

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☞ Post-Masters, Agents, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to

D. D. T. MOORE, Rochester, New York.

Competitors for our Premiums.

Below we give the names of the principal competitors for our January and April Premiums. The three first are entitled to the January premiums of $20, $10 and $6. The names are given in regular order—commencing with the person sending the largest number. Those in parenthesis are equal, or tie:

Silas H. Swetland, V. W. Sunderlin, E. C. Bliss, Apollos Kent, J. D. Stone, J. H. Stanley, Silsby & Keeler, O. Warren, B. Farr, (H. J Ray, E. F. Munson, W. Lyman,) H. Frisbie, W. L Booth, (E. S. Marvin, D. P Chamberlain,) Moses Eames, S. Heston, (S. Lee, L. Strobridge, L. A. Miller, R. Clark, C. H. Carter) (W. Churchill, A. Eaton John White,) W. Hadley, (Jo. Wykoff, C. L. Young, Luman Shepard, John Davis, R. Sears,] [Wm. Chamberlain D. M. Smith, H. Munson,] J. M. Trowbridge, E. W. Gerrish.

Farmer Office, Rochester, Jan. 25, 1849.

To Agents, Post-Masters and Subscribers.

Agents. Post-masters and other friends of the Farmer will bear in mind that we offer Premiums amounting to OVER TWO HUNDRED DOLLARS (in Agricultural Books, Implements, &c. at cash prices,) for subscribers obtained before the 20th of April next. We have not room to publish the list of Premiums in this number, but will send it, together with show bill, specimens, &c., to all who wish to compete.

We hope that *all* of our present patrons will renew their subscriptions, and get as many new subscribers as convenient. If each of our readers will take the matter in hand—and we earnestly invite all so disposed to obtain and forward subscriptions—much may be accomplished in every section of the country. Friends, will you SHOW THE FARMER TO YOUR NEIGHBORS AND ACQUAINTANCES, AND INVITE THEM TO SUBSCRIBE?

THE GENESEE FARMER,
Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.

P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

Five Copies for $2, and any larger number at the same rate, if directed to each subscriber. Eight Copies for $3, if addressed to *one person only*—and any larger number, directed in like manner, at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE. No deviation from these terms.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—MARCH, 1849. NO. 3.

Farm Husbandry

MAKING AND PRESERVING MANURE.

Few things are more stale than the popular talk about making and preserving manure. Every practical man thinks that he understands the art to perfection; and every babbler in chemical jargon believes that he has attained to the fifth story of rural science when he repeats in fair parrot imitation, the words of Johnston, Liebig, Boussingault and other standard authors. In all this, there is a lack of vigorous, independent reasoning, and of original research, which we can not commend. Let us arouse ourselves to the task of making a little investigation which is not the reproduction of other men's thoughts and language, but our own by legitimate paternity.

Why is the carcass of a dead sheep which contains thirty pounds of dry matter, better for manure than a like weight of dry grass or other herbage, similar in kind to that consumed by the animal to form its flesh, bones, brain and nerves? This is a plain and important question; and one that every farmer's son who is twelve years old should be able to answer correctly, in a moment. Give us the true explanation of this phenomenon, and we will proceed a step farther in the same direction. The solution of the problem is this: The atoms in the carcass of a sheep which weigh but thirty pounds have been extracted during the growth of the animal, from a small beginning up to full maturity from at least 2,000 pounds of grass or other forage. No 300 pounds of dry hay contain the same quantity of phosphate of lime, sulphur and organized nitrogen, which exists in the carcass named. But this fact would be of no importance, if it were not for another, which is almost universally overlooked in collecting and preserving fertilizers. To bring it out fairly, permit us to inquire: why a pound of bone-earth, (phosphate of lime,) or a pound of available sulphur, or one of nitrogen, is worth more as a manure than a like weight of carbon, pure lime, or oxygen? In a pound of wheat or corn, there is ten times more carbon and oxygen than of phosphorus, nitrogen or sulphur. Why then should the last named elementary bodies be so useful, and peculiarly valuable as food for corn and wheat plants? There are two reasons for this. One is, the extreme scarcity of salts of phosphorus and sulphur, and of available nitrogen, in old, well drained fields, which have been often plowed. The other, and more noticeable reason is, the almost universal ignorance that prevails throughout the country in relation to elementary substances in soils, without which not the first kernel of corn or wheat can grow. Every body knows that all kinds of matter in the earth will not do to make bread of; nor will every thing do to make into grass or potatoes. If 100 pounds of common sand, clay, iron or lime would form by any tillage an equal weight of human food, we could all live with little labor and without cultivated reason. A snake can live comfortably in a cage a whole year on a single meal. If our race could thus subsist, we should not be the industrious, inventive, moral and improving beings we now are.

The time is coming when every child must be taught a knowledge of the things and laws which its Creator has appointed to transform *simple minerals into good bread*, by the harmonious union of science and physical labor. At present this knowledge is despised; these elements of bread are thrown away; and the natural productiveness of our parent earth is assailed by four or five millions of powerful semi-civilized men, who are eagerly running a race to see who shall coin into grain, tobacco, cotton and other crops, the most of the virgin soil, for exportation and loss to the country. More of the valuable elements of corn and cotton is wasted through ignorance in raising those great staples than is consumed in organizing the same. In this remark allusion is made to the dissolved vegetable and animal mold in soils, and their incombustible salts, which never enter into the composition of the plants in cultivation, but are lost, partly by evaporation, and partly by washing and leaching. When tillage decomposes mold and inorganic matter, if no vegetables are growing to imbibe tho volatile and soluble elements of crops, they are apt to be lost.

We now return to the consideration of the art of making and preserving manure. Any element, or substance, which can aid in making a ripe and perfect wheat plant, is a fertilizer. Fertilizers or manures exist in nature in two distinct conditions. The one is, in that of organized atoms, as we see them arranged in the tissues of vegetables—in their seeds and tubers—as in wheat and potatoes; and as we find them in lean meat, fat, brain, bones and membranes. The other condition is that, in which the elements of plants and animals are wholly disorganized, or *mineralized*. For illustration: a slice of bread, a potato and a beef-steak are fertilizers in an organized form. Burn these completely, and the water, air and ashes into which they will be transformed by combustion, are to all intents, and for all purposes in nature, *minerals*. They will combine chemically with metals and earths, and exist for indefinite centuries as solid unchanging rocks. To make and preserve manure, implies the skillful collection and husbanding of the elements of bread and meat, both in their mineral and in their organized state, as in the dung and urine of animals, in common vegetable mold, in salts of lime, potash, silica, soda, magnesia, iron and alumina.

In order to collect and preserve the elements of human food and clothing to the best advantage, the operator should have a clear idea of the natural process by which both plants and animals *grow*, come to maturity, die, and are dissolved into their original elements, preparatory for a new organization. In a study so wide as this, we can only serve as a guide-board to point the way. Know then this truth, that no animal from man down to the fish and worm, can subsist on disorganized matter, like the gases, vapor and ash of a loaf of bread, when entirely consumed by fire, or fully decomposed by fermentation and rotting. These elements of bread can only be *re*-organized by a living plant under the influence of solar light, heat and electricity. From this it follows, that plants are older on our planet than animals; and that if all vegetation were to cease for a few years, all animals must inevitably perish. Plants may have flourished for ages on the globe before an insect or molusca was created; but as all animals mineralize their food, not completely, but in a degree, and cannot live on the carbonic acid which they all form, it follows that, without plants to decompound this carbonic acid, and reorganize its constituent atoms, to serve again as food for animals, they would soon become extinct, from the lack of nutriment.

The works of God are full of interest. They are unfolded in a peculiar manner before the vision of an intelligent, reasoning farmer. He cannot fail to notice the wonderful proclivity of all living things, whether vegetable or animal, to multiply in number, and gain, at the expense of the mineral kingdom, in the aggregate weight of organized matter on our given area of land. It is the every day business of the husbandman to organize the most useful plants and animals out of the atoms which Providence has appointed for that purpose. Has God made provision for the large increase of these through the instrumentality of that talking, reasoning biped, on any little spot of the earth's surface, which by courtesy is called a farm? If a larger weight of plants and of animals, can live on thy farm, kind reader, than it has at this time, think for a moment, and tell me where thou wilt get the food, the manure, to be organized into more grass, grain, roots, wool, mutton, milk and beef? These things have a market value. Providence favors their increase in thy hands; but thou, strange lump of contradictions, wilt not extract pure gold from the subsoil and the atmosphere. Thou art regardless of its loss from the vault of the privy, the pig-stye—the barn yard in winter and the cow yard in summer. Thy heart lusteth for more land, when thou hast so much already, that no acre of it yields two-thirds of its maximum. Thou hast not duly tested the advantages of soiling cows, nor the benefit of deep tilth, of close planting and seeding. Spires of grass stand too far apart on thy pastures and on thy meadows. Some of these fields can be improved by turning little rivulets over them for irrigation. Others need draining, and a coat of caustic lime to sweeten the sour muck and neutralize the mineral acids. Manure derived from cat-tails and bull-rushes is worth something; but that which clover and peas draw from the earth is worth five times more, pound for pound. One hundred pounds of rye, harrowed into the earth in a cornfield at the maturity of the crop, has organized more than a ton of fertilizers by April, to be plowed in, and feed a summer crop. For ewes with lamb, or while nursing their offspring, a moderate allowance of green rye early in the spring, is capital. Have valuable plants always growing the year round, so far as you can, on every rod of land, to feed domestic animals, unless it is thought best to sell the crops. To make the most out of vegetable vitality, it must ever be kept at work accumulating manure, which should all be saved *somewhere*. A pea can work wonders in the way of storing up fertilizers in an available form. A carrot seed has a gift in the same line; but the little clover seed is a perfect gem. Small as it is, the growing plant can not live on air alone. It consumes a good deal of sulphur and often requires gypsum to supply it.

Good farmers at the South make great use of forest leaves and leached ashes in their compost heaps. These leaves are generally rich in potash and other earthy salts as well as in organic matter.

Suppose you raise sheep for their wool, meat and tallow and sell them when three years old. The manure that can be made by a sheep in three years, with the aid of good plants to draw minerals from the subsoil and gases from the atmosphere, will be about equal to the production of food for two sheep at the end of the term. Nothing is plainer than the fact that, organized matter consumed and voided by a sheep will greatly favor the growth of food for another animal. And, although about 60 per cent. of the matter eaten, escapes from the lungs in the form of carbonic acid and vapor, and through the pores of the skin by insensible perspiration, yet the other 40 per cent. voided by the bowels and kidneys, adds more to the soil in the way of mold than was probably consumed in making the plants fed to the sheep. The quantity of mold dissolved in organizing a crop, is very unequal. It is a point in rural affairs, which we have studied with some care. On another occasion we will attempt to elucidate the laws which govern its consumption and increase, on both tilled and untilled land.

Rural industry is very generally spread over too much surface, to be profitable in the highest degree. This occasions a great waste of travel in man and beast. It also leads to a bad system of husbandry by robbing remote fields of their fertilizing atoms, not a few of which cows and other domestic animals drop in the highway. A farm being a sort of chemical laboratory, it is miserable economy to have it ten times larger than one has any use for. Less land, and more money drawing 7 per cent. annual interest, which will double the principal in 10½ years, would be an improvement in the circumstances of more than one reader of this journal.

Dairy Cows.—The excellency of a dairy cow is estimated by the quantity and quality of her milk. The grand desideratum is to discover a breed alike useful to the grazier, dairyman, and small farmer.

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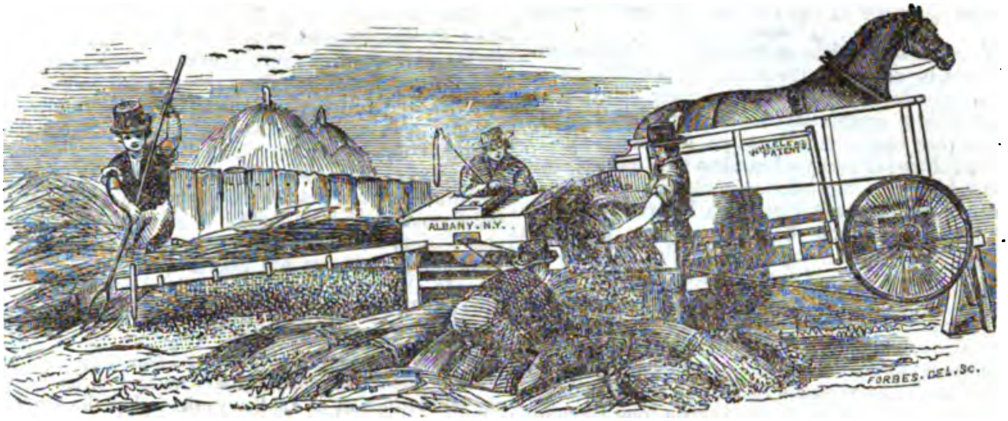

ALBANY·N.Y.
FORBES·DEL·SC.

WHEELER'S PATENT HORSE POWER AND THRESHER.

Wheeler's Horse Power and Thresher—represented in the above engraving—is one of the best machines with which we are acquainted. One of them was exhibited, in operation, at the State Fair at Buffalo, and also at the last Fair in this county, and attracted much attention from farmers and others. For a farmer of comparatively limited means and business, we believe the purchase of Wheeler's Power and Thresher a very judicious and valuable investment. Indeed, in all cases where the strength of only one or two horses is required, and particularly if a portable power is wanted, it will prove almost indispensable. The power will be found convenient for many purposes besides threshing—such as sawing, cutting straw, &c., &c.

From what we have seen of this machine—and we have witnessed the power in operation while threshing different kinds of grain, and sawing wood—we have no hesitation in recommending it to our readers. It is constructed on the "endless chain" principle, and if *properly manufactured*, we are confident it will give good satisfaction. It combines several important advantages—being cheap, portable and durable, and easily attached to different machinery. Manufactured by H. L. Emery, Albany, N. Y.—to whose advertisement, published in the appropriate department of this number, we refer the reader for further information, embracing numerous testimonials, price, &c.

MANAGEMENT OF BEES.

BY ALVIN WILCOX.

Messrs. Editors:—Having occasionally seen an article in the Genesee Farmer on the management of the Honey Bee, I have thought that more might be written on the subject, with profit to your numerous readers; and for that reason I offer a few remarks, which may perhaps be the means of inducing others to write on the subject, who are more competent to give proper information.

I have had much experience in the management of bees for the last twenty-five years—being a mechanic, and my work such as to admit of my seeing to them daily, if necessary. I have taken much pains to inform myself by actual observation and experiments, what was the best way to manage them profitably. In the spring of 1836, my brother-in-law and I had two hundred and twenty swarms, and we took from them that season over four thousand and six hundred pounds of box honey—being about twenty-one pounds to every old hive. That was what is called a honey season. The honey brought in New York market, over thirty dollars per hundred. The amount of box honey will vary from five pounds to twenty to the old hives kept—depending altogether on the season for honey.

Those who intend to buy, should, if convenient, begin with two or more swarms, as there is always some that will not produce more than they will use. Select early, last season swarms, as they are the best, if they have honey enough to winter. Rather small hives are the best for profit. In winter they require but little care more than occasionally looking to, and keeping the passage clear; and board and tub hives should have a place for the bees to pass out and in at two or three inches above the bottom board, as in winter there is a mist continually rising from the breath of the bees that accumulates in the top of the hive in the form of frost; in milder weather it melts to water and runs down and freezes and shuts the lower passage tight; then if there is not a passage above to admit air the swarm will suffocate.

At the commencement of warm weather in the spring they should be examined, the bottom boards cleaned off, and if any swarms are feeble as to amount of bees it is best to give them but one place to enter, as it enables them the better to guard against robbers. Bees are the most liable to rob each other the first warm weather before they begin to gather honey. If they begin to rob a hive, the best way is to take it up, as I never had a swarm amount to any profit after the robbers had gained free access to the honey. It is very seldom that robbers injure a healthy, good swarm.

West Bloomfield, N. Y., 1849.

Idleness.—Said the distinguished Chatham to his son, "I would have inscribed on the curtains of your bed and the walls of your chamber, 'If you do not rise early you can never make progress in anything. If you do not set apart hours of reading; if you suffer yourself or any one else to break in upon them, your time will pass unprofitable and frivolous, and unenjoyed by yourself.'

NOTES ON THE FEBRUARY NO. OF THE FARMER.

YOUR leading article on the subject of Agricultural Schools, is just and to the point. It is to be lamented that farmer's sons, who must forever compose the great bulk of community, are to have no better education than can be picked up by a few month's desultory teachings of perhaps beardless boys and untaught pretenders, who often officiate in our common schools; many of whom themselves learn B, while they are teaching their pupils A. The subjects taught in a properly regulated Agricultural School, will not simply relate to the *ic's* and *ate's* of science, but to all the parts of practical knowledge, that compose and create the business man and render them fit for our future Legislators and Governors. Is it not to be deprecated, that the whole of our legislative concerns have to be managed by the learned professions, one half of whom don't know a clevis from a coulter, and but little of the practical wants of community? In the name of common justice let it be once tried, if only as an experiment.

Cabbage.—The analysis you gave of the plants of the cabbage tribe, shew from their constituents, why their decomposition in cellars and pits are so offensive and deleterious. They contain the elements to form the most deadly miasmata. We knew a family to perish by a most malignant fever, in an entirely healthy neighborhood. On searching for some local cause, a temporary pit under the floor was found, containing a decaying mass of cabbage and turneps, sending forth the most deadly exhalations. Cellars should early in the spring be thoroughly cleaned of every description of vegetable, and well ventilated.

Golden Dreams.—Your correspondent, in his speculations upon the amount and result of the great influx of the precious metals; must have been indulging in a dose of exhilirating gas. He underrates or overrates every point. His estimate of the circulating medium of the world is too low by half. If he refers to gold only he is nearer the truth. The produce of the mines of Europe and America, are at the present time less than $30,000,000 annually. The precious metals have not increased as fast in proportion as population, since the year 1815, the period of the termination of the great wars of Europe and America; hence the general decline of prices since that time. The precious metals as a circulating medium are daily declining in amount, from the great demand for the uses of the arts. The amount required to absorb bank paper, in case it should become extremely plenty, would consume over $400,000,000 in Europe and America; quite an item for the "golden shower," and when we consider that were the agrarian system to prevail, and all the gold and silver in the world were equally distributed, there would not be quite *seven dollars* per head; there would be lee-way for a good many drops of the golden shower, before we should all go mad as he prognosticates.

In the commerce and exchanges of the world, there must be something to represent property and value, and it matters not whether it is gold or rags, so long as the conventional notions of the world call it good. Tommy Nokes' paper is good only as far as Tommy Nokes is known, but the auriferous bars and coin are universal, and will crowd paper off the boards, if it becomes plenty. The value of gold and silver is in exact ratio to its scarcity and *vice versa.*

The mind of man is but too prone to be on the alert to speculate on human credulity and take an unfair advantage of every monetary mania. Kingdoms and nations have their rise and fall as well as families and fortunes, commercial and agricultural affairs; it is one of the conditions entailed on the affairs of this world, and from the long depression of business affairs, we will not undertake to controvert the opinion of your correspondent, that it requires but a small dose of stimulus, to awaken a spirit of speculation, in the dormant energies of our excitable population. Yet we are skeptical that it will be a tornado that will annihilate all land-marks of propriety. We do not believe that it will be any "great shakes of a shower after all."

S. W., who is your constant and generally reliable correspondent, in your February number twice uses the word *alluvial*, as applied to the soil of the Western country, not in a correct sense, scientifically speaking. Alluvial, strictly, is the recent deposits of rivers, lakes, and descending currents, and known as "intervale," while the great mass of soil or *drift* is a remote deposit, the result of the last great convulsions that swept over the globe and anterior to the existence of animal life, or the present order of vegetation, and is denominated as *diluvial.*

Pea Bugs.—We should like to know what advantages A. H. promises himself, in keeping peas corked up in a bottle for two years. The objection to sowing buggy peas is not that they are thus distributed in the field, assisting future propagation, as their number must be utterly insignificant—but that the bug destroys the germ and it fails to vegetate. The mischief is done by the insect in the larvæ state, and that process would go on, as well in the bottle, as in the bag.

Butter and Butter Making.—Mr. EMERY's recommendation of the use of the Lactometer, for testing the value of milk, should commend itself to every dairyman and farmer. When we consider that two cows of equal fine proportions and giving equal quantities of milk, one may be worth $30 and the other only $15, relatively as to the *quality* of milk, the importance of an instrument to immediately test the fact, is of great consequence.

In the experiment stated in relation to the Kendall and Atmosperic Churns, the first is made to produce 7½ ounces to the pound more butter than the latter, with equal quantities of cream. If this is true and was a fair experiment, the result must be fatal to that invention and result in an immense loss to the purchasers of that right, as it is said the patentee has realized $100,000 from his sales.

Wire Fences—Again.—Your talented correspondent T. C. PETERS, suggests another variety of this new "Boston notion," and of a much cheaper construction. We think the stakes intervening between the posts, if not made of a more indestructible material than any we are acquainted with, would prove but a broken reed; in short we must be permitted to remain a doubter as to its applicability to farm fences, except in the prairie country where they have no other resource. Yet its expense would not ruin one to try it. An ounce of trial is worth a pound of speculation.

Drill Husbandry.—We think favorably of the process of drilling in wheat and all small grains; if for nothing more than for the advantages of the deep and perfect planting of the seed. In those fields infested with red root and other noxious weeds, it would be invaluable, as it would allow the harrow, or hand hoe to destroy the whole mass of plants previous to their seeding, except in the drills, which might be hand weeded.

Lunar Influence.—Your correspondent H., in answer to Mr. D., seems to us to be engaged in that unprofitable contest—trying which can do the other the most harm; a course more to be tolerated in the breach than in the observance. His articles on other subjects are interesting.

Page's Portable Wind-Mill.—We have often thought what a mighty and available power, sweeps daily over our heads, unused and unnoticed. Although the whole inventive power of man is tasked to multiply labor-saving machinery, yet the irresistible torrents of the viewless air, possessing all the potentiality of water or steam, is not harnessed by the will of man for his benefit. In all flat countries, which have to depend upon wells for the use of cattle, a cheap, simple and durable wind-wheel, with a leather strap and buckets, like a mill elevator, lifting the water into a trough, the overplus conducted back into the well, and situated at the corner of two or more fields, would double the value of the land for pasturage.

Outlines of Fruits.—Won't you, Mr. Editor, to oblige ten thousand of your readers, omit those uncouth outlines of apples, pears, &c., those cycles in epycicles, orbs in orbs—those unmeaning uniformities. There is no individual one of them but may serve for twenty varieties, and no person under heaven can individualize any one of them, sepatate from the letter press descriptions. They are unsightly and unprofitable to your readers, and costly to yourself. We pray you to reform it altogether.

In Season and Out of Season.—Permit me, Mr. Editor, to suggest to you the propriety of adapting your own and your selected articles to the season of the year in which they appear. To be talking to us of planting corn, when there is two feet of snow on the ground, or of housing and feeding cattle in dog days, is like "sweet bells jangled—harsh and out of tune." H. Y.

GOLDEN DREAMS—GEOLOGICALLY CONSIDERED.

MR. MOORE:—Many persons are disposed to question the authenticity of the reports, relative to the almost inexhaustible supplies of Gold and other precious minerals in California and New Mexico; because they cannot see how, or why, such an immense deposit should only be found in that locality, and not otherwheres on the globe.

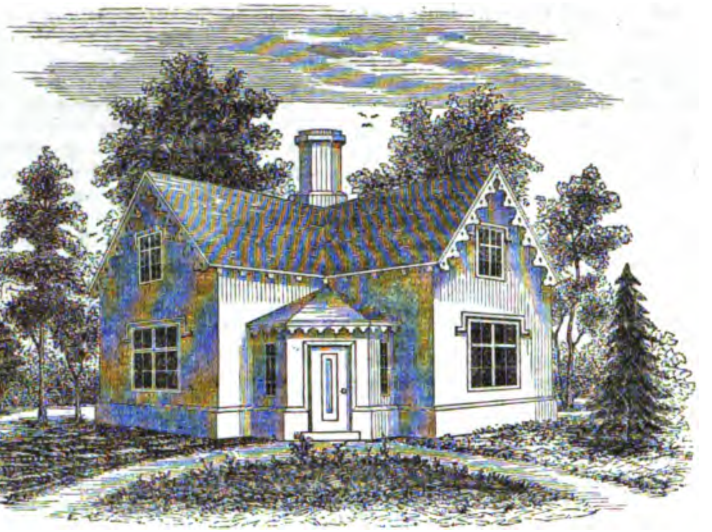
I am disposed to think, that gold is a more universally distributed metal than has generally been supposed, and many sands will be found to be auriferous, especially if in the neighborhood of primitive or metamorphic ranges. It is found in Mexico, South America, Africa, the Southern States, in Vermont, in the Wicklow Mountains of Ireland, and to the extreme north in Russia. Some persons suppose that it has been thrown up by volcanic action and fell a gold shower on the sands. Its production and location is simple and easily accounted for, if we look at the cosmogony of the earth, and observe its strict mechanical structure, from the lowest sedimentary rock to the surface; coming to the unerring conclusion, that every particle of the soil, is the result of the decomposition and abrasion of the plutonic and sedimentary rocks; quietly by the elements, and by the rushing of floods and currents, caused by a change of the poles; or variation of levels, from the upheaving, or depression of vast tracts of the surface. The source of these metals will be found in the great chain of mountains, that separate the Atlantic and Pacific Oceans, which are volcanic and probably green stone and basaltic. These upheaved and volcanic masses in cooling contracted and cracked, leaving fissures, which were subsequently filled by igneous action, with quartz and metamorphic matter, which contained the gold, injected by the mighty force acting from below, as is always found to be the case with the metals found in the primitive rock as a matrix.

Gold is often associated with sulphuret of iron, which is of easy decomposition, leaving the gold, which is indestructible, free, to be washed down to the valleys, by floods and rains and the great commotions of the early periods of the earth's history. From the flattened and plated appearance of the washed gold of that region, it is evident that the agent of its distribution was the tremendous currents, that, during the unsettled periods of the earth's age, were so general over its whole surface, and the rushing of all loose, yielding and unattached matter, compounded of water, rocks, icebergs and abraded materials, sweeping with inconceivable velocity, at a time when the "earth was void and without form," which denuded and laid bare formations and strata, which had originally superior deposits, of more than 10,000 feet in thickness, and which being crushed and comminuted forms the present soil.

The direction of the last of these great currents, which finally left the drift or soil as it is now found, was in a direction on the Atlantic side of the great dividing ridge, (occasionally deflected by the mountain ranges a few degrees,) in a north and south direction, as the marked and striated rocks below the drift, every where give unmistakeable evidence. The precious metals found not in *situ*, but in the soil, can readily be turned up to the original deposit, by finding the course the great oceanic currents took on the Pacific coast and following the mountain ranges. Gold is generally found pure, occasionally alloyed with silver, but never with a salifiable base. It is found in all sizes and shapes, from hundred pound masses to the finest dust, in which case quicksilver is used to dissolve it, which is then driven off by heat. *

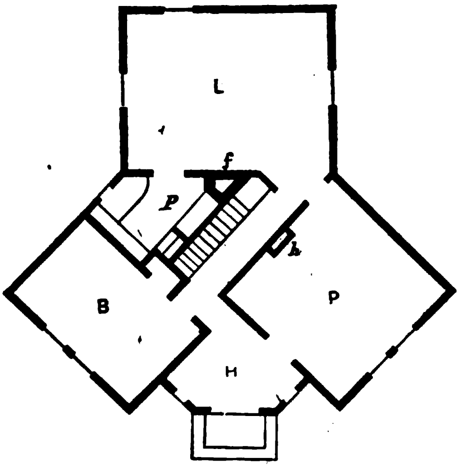
REARING LAMBS.—I think the difficulty mentioned in the January number of the Farmer, page 46, may be obviated by the following process:—In the month of August take the lambs away from the ewes, with a few old sheep you wish to fat and kill, and put them in fresh feed, and the lambs will do better than to run with the ewes. The ewes will improve, and the lambs will winter as well as the old sheep, on the same feed. My word for that. Try it. *Wayne Co., Feb.,* 1849. E. K.

THE BEST ANIMALS.—Of all animals, of whatever kind, those with the smallest and cleanest bones are generally the best proportioned, and covered with the best and finest grained meat. They are the hardiest, healthiest and best feeders; able to bear the most fatigue while living, and worth the most per pound when dead.—*Sel.*



PLAN OF A FARM OR SUBURBAN COTTAGE.

The number and uses of the rooms in this plan for a small Farm House, are of the most common description, to wit: a parlor, a living room or kitchen, a pantry and a bed room, on the first floor; and three bed rooms, with closets, on the second. It is manifest that this singularly odd, yet more than ordinarily convenient arrangement, is adopted for the sake of the novelty of the external form—a form which will produce a very pleasing effect when finished in the most simple style, and which is particularly adapted to a high degree of ornamentation.



GROUND PLAN.

[illegible], Hall or entrance. P, Parlor. L, Living room or kitchen. B, Bed room. *P*, Pantry, with shelves. *f*, Principal chimney. *h*, Parlor chimney.]

In this design the parlor is 13½ feet square, inside measure; the kitchen 13½ by 16½; the bed room, which has a small closet, 13½ by 9; the pantry 6½ by 8½; the hall or entrance 7½ by 7½; the passage 2 feet 8 inches wide, and the stairs 2 feet 4 inches. The bedrooms in the second story are of the same size as the 3 lower rooms, and directly over them. The space over the pantry affords room for two good sized closets. The parlor chimney ascends only to the chamber floor, and a pipe runs from it across the passage to the main chimney The rear gable is of the same height as the two front ones, but the roof is less steep, inasmuch as the back part is wider than the front parts. The wood-house should stand 20 feet in the rear of the building.

The cost of materials and labor, varies so much in different locations that it seems needless to attempt giving an estimate of the expense. It can be readily ascertained in any given place, when the style of architecture is determined on. S.

Remarks.—The novelty of the plan here given by our modest friend "S.," will attract attention. We think the perspective front view is admirable—showing good taste, without that excess of ornamental finish so frequently attached to modern cottages. This plan will meet the wants of many grain-growing farmers. It will also make a handsome Suburban Cottage, as the style of architecture and finish may be varied to suit the taste of the owner. The cost will vary from $500 to $800—depending upon style of finish, cost of material, &c.—and is therefore within the means of farmers and others of limited abilities or acres.

We have several other original plans for farm cottages, recently received, some of which will be given in future numbers of the Farmer.

* * *

Those who prepare plans of Buildings for publication in the Farmer—and we invite all who possess a talent for designing to exercise it in that direction—will oblige us by making their drawings as perfect as possible. The size of each room should be given, and distinguished by some mark or letter, by which it can be easily referred to on reading the description of the plan. A careful estimate of cost would, also, add much to the value of such articles.

THE PLOW—ITS HISTORY AND IMPROVEMENTS.

BY HORACE L. EMERY.

It has been well said that "the history of the plow is the history of civilization—that the progress of its improvement marks the progress of society." Thinking that a few remarks upon, and facts concerning the past and present condition of the plow, with a description of several of the most approved forms now in use, showing their adaptation to the various soils, modes of culture, &c., &c., might not be uninteresting to many of your readers, I offer you herewith a short communication upon the subject—hoping to be able to complete the article in your next number. I intend to show, by the use of several new cuts, the various forms of mould boards, and the difference in the effect produced by them, both in the same and different soils; also the effect of different construction of the wood work, the various modes of attaching the team, and the comparative cost and simplicity of the same.

One of the first improvements upon the original plow, or straight-pointed stick of wood, drawn through the ground by manual power, was the substitution of the crotch of a tree, drawn by being attached to the tail of an ox—afterwards, however, by being attached to the horns, which last method is still extant in some countries. From that era in the history of the Plow, it has gradually received more and more attention as its importance has become known; but until within the nineteenth century the implement has been rude and imperfect, as compared with our modern plows.

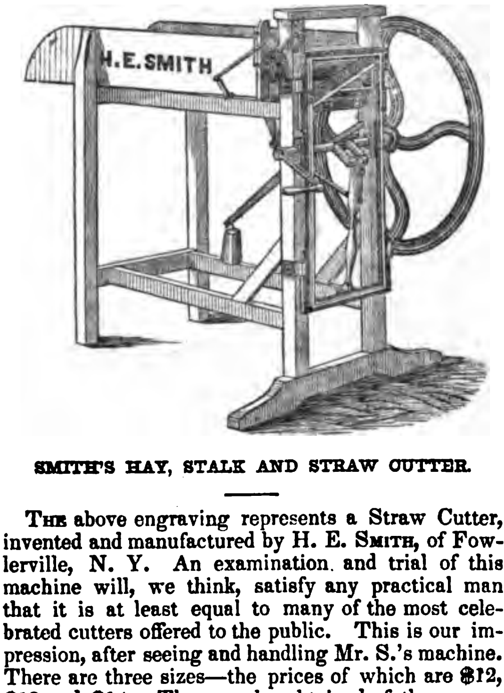
I remember when mould-boards of plows were made from the trunks of winding trees, cut into pieces of proper length and split through the middle, the face of each half thus forming a regular winding surface. These sticks were then wrought from the other side until a proper thickness was obtained—the winding surface being preserved, formed the mould-board. These mould-boards were then covered with strips of wrought iron and furnished with wrought iron and steel edge coulters and points. The beams and handles were similar to those of modern plows, excepting that the handles were made with natural crooks for the top, by using the stumps of oak trees, and a portion of the root near the surface of the ground, which were obtained with much labor; and, instead of a clevis on the end of the beam, a staple was driven into the side, by which it was drawn.

In making this kind of plows nearly the same process is gone through in each one as in the making of a pattern. Uniformity in their construction was not thought of—in fact, almost every plow was made to order, according to the peculiar notions of the purchaser. As for repairs, they were made according to the ability of the blacksmith, and nearly as often as repaired the plow would be quite altered—sometimes for the better and sometimes for the worse. A good plow maker in those days could obtain $12 to $16 for a plow of the size now sold for half the sum.

One great step forward from the last described, was the substitution of cast iron for the wearing parts in separate pieces, so as to be replaced when worn or broken—thereby preserving the original form, strength and durability, and at the same time effectually reducing the cost of repairs. The honor of this is generally accredited to **Jethro Wood**; at all events he obtained the first patent for this invention and improvement. In process of time he produced many patterns of plows, some of which are still highly esteemed for their simplicity and adaptation to some uses; but he, like most inventors, had much to contend against in introducing them to the public, and died without realizing due reward for his labors—although his heirs have, by a renewal of the patent, realized a handsome sum, yet it is now common property by its own limitations. Cast iron is now chiefly used for plows throughout this country, excepting in some portions of some of the Western States, where still plates are struck up in shapes and used for the mould boards.

The principal improvements which have been made in the plow, since Mr. Wood's, have been in its form—the composition of the metal, as regards its strength and hardness, the connection of the several parts of the same, and the mode of attaching the wood work to them; also in the manner of constructing the wood work as regards simplicity and uniformity, so that repairs for the wood are as easily made as for the irons, and with the same perfection. Great improvements have also been made in the manner of regulating and adapting the same plow to a greater variety of work.

The credit of these improvements belong to a great number of persons—among whom may be named Starbuck, Wright, Hitchcock, Hawkins, Emery, Rich, Nourse, Minor, Prouty, Burrall and many others. Each of these men has added something new and useful in pattern, form, or construction, until the business of building of plows has become systematized and an immense amount of capital has been invested in it; and it now is as distinct a business of itself as carriage building. *Albany, N. Y.*, 1849.



SMITH'S HAY, STALK AND STRAW CUTTER.

The above engraving represents a Straw Cutter, invented and manufactured by H. E. Smith, of Fowlerville, N. Y. An examination and trial of this machine will, we think, satisfy any practical man that it is at least equal to many of the most celebrated cutters offered to the public. This is our impression, after seeing and handling Mr. S.'s machine. There are three sizes—the prices of which are $12, $13 and $14. They can be obtained of the manufacturer, as above, or of Rapalje & Briggs, E. Watts, and Barton & Belden, in this city. [A description of the machine was prepared for this number, but is necessarily deferred.]

ANOTHER CHAPTER ON WIRE FENCE.

BY MYRON ADAMS.

MESSRS. EDITORS:—I did not say all I wished concerning Wire Fence in your January paper, because I am aware that short articles are much more acceptable to your readers than long ones. The fence there described is rather a fancy fence than a cheap one, being in front of my dwelling house, and in a very exposed situation. I am sensible that it is much more expensive than ordinary farm fences need be, but much cheaper for that particular place than any other I could make. I wished rather to present to the public what I had done, than untried theories of what I might do.

I find my fence the subject of some remarks in your last paper, and am well aware that the subject of wire for fencing is attracting much attention throughout the country. I think if Judge PETERS had waited until he had built the sample of wire fence he speaks of building, he would have found experience to have corrected somewhat his plan as laid down in your last paper. In the first place he would have found that there is no possible advantage of having a wire fence over four feet high, as no animal will attempt to jump it. The reason I suppose to be, that they do not see it until too near to jump. Nothing has ever attempted to jump mine, although it has been assaulted by every kind of animal that runs the street. They always expect to pass right through without hindrance or molestation, but the moment they strike the wires they recoil as if touched by an invisible hand. His manner of fastening the wires by passing them through holes in the posts, and driving in plugs, will not answer. I began my fence in the same way, but found whenever an animal run against it the wires slipped, and the fence was broken through. The number of wires, and their distances apart, are objectionable. If the object be merely to fence against horses and grown cattle three wires are as good as more. But if sheep and swine are to be restrained by it, nine wires at the distances I proposed will be found better adapted to the purpose. If animals get their heads through, they will break the wires if they are able.

I will now describe the manner I would build a common field fence. After having set the posts and braced them as described in the January number, I should place the coil of wire upon a reel and drawing out the end run it from one post to the other—having the same number of wires and distances apart as before described. After these were strained, I should take narrow strips of boards instead of those iron posts mentioned in the January number, and drive tenter hooks over the wires to keep them at their relative distances apart and from sagging. If the ground is of uniform descent, twenty rods is the distance I should place the posts apart, and this should constitute one pannel, separate and entire from the remainder. The object of this is in case of accidents it may the more easily be repaired. The next pannel might commence from the same post, but the wires should not be connected. I should think two men could build twenty rods of this fence in a day, after the wires had been prepared by boiling in oil. This is the cheapest way of building wire fence I could name. And yet I should prefer going to the expense of iron posts, as I have before described.

Those persons who build a wire fence in the cheapest possible manner, I fear will be discouraged, and throw it aside as worthless. Farmers ought to be content if they can build a durable fence, and one that answers every desirable purpose, for fifty cents a rod. Mine has been one of experiment from the outset, and I have tried almost every plan I have heard suggested. Before I had completed it in the manner described, it was frequently broken; but since, it has only been broken once, as before mentioned. Your reviewer is pleased to speak of it as offering no more resistance to an animal disposed to ramble than "the spider's most attenuated thread." With due deference to his opinion, permit me to say, that if he should witness the throng of starved village cows which roam our streets, and notice with what eagerness they eyed the apples just out of their reach, he would at least allow that this fence had *enchantment* about it. I know that this kind of fence is more liable to accidents on account of its being invisible. But this objection is in a great measure counterbalanced by suffering no damage from high winds, or forming no snow drifts beside it.

I will now describe my manner of mending it when broken, remarking, that nothing conveys a more vivid picture of complete ruin than a broken wire fence, as the wires recoil and twist up the whole length of the pannel. After loosening the wires at the windlass, I provide myself with a small furnace, such as is used in families for heating flat-irons—bring the ends together and heat them in the furnace, then flatten them for two or three inches, laying them together and winding with small wire. Then, by turning upon the cranks, the fence is brought to a standing position, and is repaired much quicker and at a less expense than a board fence could be. It will not answer to loop them together, as telegraph wires are united, as they always break in case of accidents when the wires are bent.

I should like to tell of the vibrations which a damp snow causes to the wires—of the sweet sounds which sink and swell through the air on a cold windy night—and of the cost of this kind of fence in comparison to other fences, if wire can be purchased as cheaply as stated by Judge PETERS—but have not time to say more at present. *East Bloomfield, N. Y., February*, 1849.

DOOR YARD FENCE.

BY N. ALLEN.

A durable, and in many places a cheap door yard fence may be constructed as follows: Get rough stone as they come from the quarry, (3 feet long or more,) and set in the ground 18 or 20 inches. That part of the stone above ground should not be more than 8 inches square. Prepare casings as for wood posts, of uniform size, and sufficiently large that when well mitred together they can be put over the stone posts. At the proper height for the top and bottom rails, (to which the pickets are to be nailed,) mortice through the casings, and make tenons on the ends of the rails, long enough to pass through the casing, and admit a pin through the ends of them, in the inside of the cap. Set the cases over the stones, putting in the rails and pinning as you proceed. Then straighten your posts and rails, and raising the cases from the ground a few inches, proceed to fill up the cases to the top with small stones, taking care to put them in as closely as possible around the stone posts. Then cap your posts and upper rail to suit your own mind—but let it be done with taste. *Toledo, O., February*, 1849.

Transmutation of Plants.

WHEAT AND CHESS.

BY R. B. WARREN.

Much has been said, pro and con, for a few years past upon the metamorphosis of wheat to chess ; and while some writers have denied the possibility of such a change, others have maintained with equal confidence that, under certain circumstances, such a change does take place. I am not at all surprised that many who have never given the subject a thorough investigation, but have taken *appearances* and the belief of their ancestors as law and gospel, should adhere to and advocate this doctrine, but I am surprised that any observing person should adhere to a doctrine which does not bear the test of experiment, and which is not supported by a solitary scientific fact or argument.

We shall look in vain through the whole vegetable kingdom for a parallel—the changes produced by cultivation—those witnessed in the Orchis and other tribes do not furnish it—for *varieties* only, and not new *Genera* and *Species*, are thus produced. Wheat and chess do not even belong to the same *Genus*, and if the theory of the transmutation of wheat to chess be admitted, it presents a solitary exception to the laws which govern the vegetable kingdom—an anomaly in the vegetable creation.

Perhaps by a little investigation we may arrive at the true state of the case, and satisfy ourselves whether this one anomalous circumstance does exist in the vegetable kingdom—whether wheat is ever metamorphosed to chess. Let us first premise that in no other known case does the metamorphosis extend beyond the production of *varieties* by cultivation, or by the admixture of the pollen of plants of *different species in the same genus*. Thus the pollen of the pumpkin will fecundate the seed of the squash, and the product will partake of the properties of both. The same may be said of the different varieties of apples, peaches, potatoes, corn, &c. But we never find varieties produced by the intermixture of the pollen of different *genera*, as of apples and pears, melons and pumpkins, or of Indian corn and broom corn. Indeed such changes rarely take place in different species of the same genus, and when they do, *varieties only, and not new species are produced*. We never discover any thing of the kind among the *Asters*, the *Solidagos* or the *Careces* ; yet these are three of the largest genera of plants. If we plant a kernel of Indian corn we do not expect it to produce broom corn ; neither do we look for oats or rye from wheat, yet, in fact, there is as much probability and possibility of such a change, as that wheat will change to chess. None of them belong to the same genus. Wheat belongs to the genus *Triticum* —rye, *Secale*—oats, *Avena*—chess, *Bromus*. But, say you, this metamorphosis may take place by changing the condition of the roots of the young plants, and without the agency of the pollen. In fact, this seems to be the general belief. A few words will expose the fallacy of this theory also.

Students of nature have in vain endeavored to determine by what process plants are enabled to absorb from the earth, and appropriate to their use only such elements as their particular organization requires, rejecting all others. We see the oak, sugar maple, chestnut, gensing, poison hemlock and deadly night-shade spring from the same soil and experience no fear that their proximity will cause the one to partake of the properties of the other ; in whatever situation they grow we find their constituents the same.

Some have supposed that the form of the pores in the bark of the roots is such as to regulate the conditions of *endosmose* and *exosmose*, (flowing in and flowing out) of the ingredients held in solution by the moisture contained in the earth, which may be the case, although the phenomenon has by no means been fully and satisfactorily accounted for.

In order to account for the change of wheat to chess in this way, we must suppose that the form of the pores—the conditions of the *endosmose* and *exosmose*—by some unseen agency meet with a radical change, which is again contrary to all experience, and the only known exception to the laws which govern and regulate vegetation. Let the conditions be what they may, we nowhere else in nature find a parallel to this. Hence, we are almost irresistably forced to the conclusion that no such transmutation ever occurs, and shall be forced to concede the point if we can account for the presence of chess in any other manner, which we will endeavor to do in a few words.

Not only will chess vegetate, which has often been denied, but its vitality is not destroyed by lying in the ground several years. Hence experiments for testing the fact of its production from wheat, should be conducted with the utmost caution. It may be in the ground before the wheat is sown, and it is a well known fact that pigeons disgorge it from their crops, (and also other food) when they find any thing more palatable.

Farmers are often deceived as to the amount of chess contained in their seed wheat, and often that which is considered very clean, will contain two or three kernels of chess to each handfull of wheat, and, allowing this to cover two square yards of ground, we have at least one kernel of chess to every square yard of ground, and oftener three. Chess rarely winter-kills, it being much more hardy than wheat. In the fall of 1847 I planted sixteen kernels of wheat and sixteen kernels of chess side by side—only *three* roots of wheat survived the winter and came to maturity, whilst *thirteen* roots of the chess matured. Comment is needless.

It may be asked why so much more chess is found in fields of winter-killed wheat than in others, if wheat does not change to chess ? I answer: where the wheat is killed the chess has abundant room to stool out—from 25 to 80 stalks often springing from one root. As many *roots* of chess may exist in a field of wheat which is not winter-killed, but not as many *stalks*, as the wheat prevents its stooling. These facts may be ascertained by any one who will take the trouble to investigate.

But the most conclusive argument against the theory, is the fact that those who have made careful experiments upon the subject, become convinced that no such change takes place—those who *sow* no chess *reap* none. *Alabama, N. Y., Feb.*, 1849.

It has been eloquently remarked, that in the obscurity of the cottage, far from seduction of rank and affluence, is nursed the virtue which counteracts the decay of human institutions—the courage which defends the national independence—the industry which maintains all classes of the State.

Meteorological Observations, &c.

METEOROLOGICAL ABSTRACTS OF 1847 AND 1848.

BY LEANDER WETHERELL.

These years are placed in juxtaposition in order to present to the reader a comparative view of the last two years.

Monthly mean temp. of	Jan.	1847,	24.63;	do.	1848,	30.66
“ “	Feb.	“	25.31;	do.	“	28.50
“ “	Mar.	“	28.44;	do.	“	32.25
“ “	April	“	41.42;	do.	“	44.70
“ “	May	“	58.27;	do.	“	59.72
“ “	June	“	61.94;	do.	“	67.63
“ “	July	“	71.76;	do.	“	69.23
“ “	Aug.	“	67.31;	do.	“	72.81
“ “	Sep.	“	58.48;	do.	“	56.20
“ “	Oct.	“	47.36;	do.	“	49.33
“ “	Nov.	“	41.05;	do.	“	35.81
“ “	Dec.	“	32.23;	do.	“	34.35
Annual mean temp. of		“	46.64;	do.	“	48.55
Highest degree,		“	95.00;	do.	“	94.00
Lowest degree,		“	0.00;	do.	“	0.00
Greatest range,		“	95.00;	do.	“	94.00
Warmest day,		“	July 19;	do.	“	Aug. 16
Coldest day,		“	Feb. 23;	do.	“	Jan. 10
Wind — North, in		“	14 days;	do.	“	17½ d'ys
“ Northeast,		“	32½ “	do.	“	24½ “
“ East,		“	8 “	do.	“	11½ “
“ Southeast,		“	38½ “	do.	“	33 “
“ South,		“	33½ “	do.	“	23½ “
“ Southwest,		“	68 “	do.	“	62½ “
“ West,		“	68 “	do.	“	67 “
“ Northwest,		“	102½ “	do.	“	126½ “
Prevailing wind of		“	NW.;	do.	“	NW.
Number of fair days in		“	166½;	do.	“	188½
“ cloudy days in		“	198½;	do.	“	177½
“ days on which rain fell,		“	119 ;	do.	“	111
“ “ “ snow “		“	56 ;	do.	“	57
“ “ “ rain & “ “		“	33 ;	do.	“	23
Total fall of rain and snow,		“	38.99 in.	do.	“	32.03 in
First frost in the autumn of		“	Sep. 16;	do.	“	Sep. 27
First snow in the autumn of		“	Oct. 11;	do.	“	Sep. 22
Robin first heard,		“	Mar. 22;	do.	“	Mar. 8
Bluebird first heard,		“	Mar. 28;	do.	“	Mar. 8
Maple in bloom,		“	Apr. 9;	do.	“	Mar. 28
Plum, peach, cherry, and apple in bloom,		“	May 15;	do.	“	Apr. 24

These annual abstracts are carefully compiled and published yearly in the Genesee Farmer.

The monthly mean of each month is found by taking three daily observations; the first at sunrise, the second about 2 P. M., and the third one hour after sunset; these are added and divided by 3, which gives the daily mean; and the daily means at the end of each month are added and the sum divided by the number of days in the month. This process gives the monthly mean temperature. The annual mean is found by adding the daily means at the end of the year and dividing the sum by the number of days in the year.

The highest degree is the highest point to which the mercury in the thermometer rises during the year; the lowest, the lowest that it falls within the same period; and the range is the difference between these extremes. The wind in 1848 blew from the Northwest 126½ days — 26 days more than from the North, Northeast, East, Southeast, and South added together. The wind blew from the Southwest, West, and Northwest 256 days. This shows how greatly the westerly winds prevail over the easterly, over the locality where these observations are made.

The day is registered fair or cloudy according to the prevailing state of the atmosphere during each half day. However slight the sprinkle of rain, the day is set down as one on which rain fell, and so of snow. The snow is caught in a vessel during the snow season and melted, and then gauged: this added to the falls of rain, which are gauged, gives the total fall of water for the year in inches.

The greatest fall of water for any one month during the year 1848 was 6.16 inches—this was July: the least fall was in April — 78 hundredths of an inch; the warmest month, August; the coldest, February. The highest annual mean temperature of the last 14 years, 48.66 degrees—this was 1846: the lowest of the same period 43.71 degrees — making a range of 4.95 degrees. The highest degree of the thermometer, kept in the shade where there was a free circulation of air, and not exposed to reflected heat, within the above named period, 102 degrees—July 16th, 1845; and the lowest 8 below zero—February, 1836; making the greatest range of the thermometer 110 degrees. The greatest annual fall of water in 1847, 39.99 inches; and the least fall, 25.46 in. The annual average is near 35 inches. The greatest fall of water for any month within the above period, 6.79 — October, 1846; and the least in January, 1837—16-hundredths of an inch.

The year 1848 has few predecessors more marked for political changes; and these are not confined to the eastern continent alone, though much greater and more exciting there than here. It is memorable for the progress of the Cholera on the eastern continent, and also for its appearance in New York and New Orleans on the western just before its close. It was a year also which the husbandman will have as little cause to forget as the lover of liberty; for it crowned his toils and cares with abundant harvests.

METEOROLOGICAL MEMORANDA.

The lowest degree of the mercury of each of the winter months in Rochester from Jan., 1835, to Feb. 17, 1849:—

1835, Jan., 4 below zero; Feb., 7 below zero; Dec., 4 below zero.
1836, Jan., 2 above; Feb., 8 below; Dec., 3 above.
1837, Jan., 4 below; Feb., zero; Dec., 11 above.
1838, Jan., 5 above; Feb., 1 above; Dec., 1 above.
1839, Jan., 2 below; Feb., 1 above; Dec., 8 above.
1840, Jan., 2 below; Feb., 3 above; Dec., 5 above.
1841, Jan., 8 below; Feb., 1 above; Dec., 8 above.
1842, Jan., 5 above; Feb., 7 above; Dec., 10 above.
1843, Jan., 8 above; Feb., 6 below; Dec., 6 above.
1844, Jan., zero; Feb., 2 below; Dec., 6 above.
1845, Jan., zero; Feb., 3 above; Dec., 5 above.
1846, Jan., 4 above; Feb., 1 above; Dec., 14 above.
1847, Jan., 4 above; Feb., zero; Dec., 10 above,
1848, Jan., zero; Feb., 6 above; Dec., 12 above.
1849, Jan., 9 below; Feb., 7 below.

Jan. 12, 1849, shows the lowest fall of the mercury, here, on record.

The coldest day within the above period, was Friday, Feb. 16, 1849—the mean temperature of the day, from three observations, being 2¾° above zero. The record of the 16th of Jan., 1840, shows 3 deg. above zero, ¼ of a deg. higher than the cold Friday of 1849.

Note.—Saturday morning, Feb. 17; the mercury 7 deg. below zero at 7 o'clock A. M.; at 7½, 5 below: and at 8½, zero. This an hour and a half after sunrise, and a clear atmosphere.

* * *

The Feeding of Animals should be regulated by a variety of considerations. The young who may be destined for maturity, should be supplied with milk from the dam until weaning-time. No food can be substituted for the well-filled udder of the parent, which is so safe, healthful and nutritious. —*Allen's Domestic Animals.*

BASTARD FALLOWS.

The system of making summer fallows, by allowing land to lay a whole year in a naked and unproductive state, for the purpose of preparing it for autumn wheat, is extensively practiced in all the wheat growing districts of the United States. The process of making naked fallows, when the loss of a whole year's rent of land—or interest on the value thereof—is taken into account, under the most favorable circumstances is expensive, and may be in most cases dispensed with, without in the most trifling degree detracting from the annual productiveness of the soil. If this proposition can be sustained *in practice*, by the entire mass of the wheat growers of our country, then may the over populated portions of Europe have confidence in being able at all times to get a supply of bread stuffs from America.

Naked fallows are expensive and useless, and that a much more profitable system of managing land for fall wheat can be adopted, are opinions which are gaining ground, and are believed by many of the most enlightened cultivators of this country. The great bulk of the farmers, however, have not given the subject much consideration, nor do they yet understand the best and cheapest method of keeping up the fertility of their soil, and at the same time, increasing its annual products without subjecting their land, in periods of four or five years, and in some instances much more frequently, to the old fashioned and extravagant practice of summer fallows. With a view of promoting the interests of agriculture, an attempt will be made by the writer, to minutely discuss the subject in all its bearings, during the succeeding six or eight numbers of the Farmer.

The ordinary practice of making fallows cost at least eight dollars per acre; in this calculation is included the rent of land a twelve month, and the plowing and harrowing required to bring the land into a clean state of culture. The expense of manuring, draining, laying the ground into ridges, and seed, &c., would be the same in one case as the other, and therefore on the score of expenditure or economy need not be included in the calculation. In the term *bastard fallows* may be included the various modes of preparing land for fall wheat by which the loss of a whole summer or crop is not required to effect that object. It has already been shown that if land be summer fallowed, a direct charge of about eight dollars per acre must be put against the wheat crop, and as will be presently proved to the satisfaction of every reflective mind, without affording an equivalent return for such an extravagant outlay. The system proposed to be practiced will be based upon the soundest principles of economy, nor will it require a large capital to carry it out throughout the various ramifications of a well managed arable farm. One of the most important features of the system is this: the green or other crop grown upon the land with a view of preparing it for fall wheat will be of such a description, and grown upon such a scale, that in most cases the proceeds thereof will pay the rent of land and the entire expense of managing both the summer and winter crops—thus leaving the latter clear profit to the cultivator. The average yield of wheat, extending over a period of ten or fifteen years, on the best managed wheat farms in this country does not exceed thirty bushels per acre. Now, it is quite certain that even when this high average is obtained by superior cultivation and by the aid of naked fallows, quite as great a yield of wheat may be had without summer fallowing the land as with it, and therefore, why should such a practice be longer tolerated by American farmers. The Chinese, who are noted for the superiority of their Agriculture, have not found it difficult to keep up the fertility of their soil by annually growing heavy crops, without giving it any rest. In the best cultivated portions of England farms and even whole parishes are in great abundance in which the yield of wheat, extending over a long period of years has equalled forty bushels per acre, and during the whole course of cropping a naked fallow has not been made. Indeed, the enlightened and scientific portion of the farmers of Great Britain have long since exploded the semi-barbarous practice of making naked fallows, and there appears to be no valid reason, why a similar view of this important question should not be favorably received by the wheat growing farmers of America. To enlighten public opinion regarding the various systems of cultivation adapted to secure this object, and at the same time keeping in mind the climate, soil, the high price of labor, scarcity of capital to be employed in agriculture as compared with Great Britain and some portions of the continent of Europe, and other prominent features that have an influence to a greater or less degree upon the character of American Agriculture, are the real grounds that have induced the writer to take a bold stand in discussing this somewhat intricate subject, which in many of its features will be found opposed to the practice of many of our very best farmers, with whom on many other points of husbandry we perfectly agree, and the contributions of whose pens we shall be pleased to receive, on this or other subjects, whether their opinions and practice correspond with ours or not. Without further prefatory remarks, we shall briefly at this time take up the subject in a *tangible* point of view, and in our next resume it in several of its *practical* bearings.

INDIAN CORN.

The maize plant may be profitably cultivated in nearly every portion of this great Republic. In the most northern sections, where it is grown as a preparative crop for fall wheat, an early variety should be selected, and by liberally manuring the land, and clean culture, it may be pushed forward to full maturity by the first week in September, after which it should be cut up and drawn off, and the land plowed and prepared for fall wheat. By planting the hills of corn in rows about four feet apart both ways, and by passing the steel tooth cultivator twice in each direction between those rows, the land will be in as good a condition for fall wheat as if it had been summer fallowed. Besides, the manure applied to the land for the corn crop will have passed through its various stages of fermentation, and the juices having been partially absorbed or extracted in giving strength and vigor to the maize plants, there need be but little apprehension on the score of having a fallen or rusted crop, as would probably have been the case had the manure been applied to the land whilst being summer fallowed. This influence however operates only on soils where there is a great depth of decayed vegetable matter on the surface, and where a strong and luxuriant growth of straw is produced without extraordinary means being used to secure that result. There are but few soils on which unfermented barn-yard manure can be applied immediately before the sowing of wheat, without doing more or less injury to that crop. On soils where this is not the case, it will be found that *human* or vegetable mold forms a very small proportion of their ingredients, and doubtless on soils of this kind, crude and unfermented barnyard manure may be applied without producing the foregoing results. In those cases where vegetable deposits form a small proportion of the active soil, unfermented barn yard manure, buried in the soil to a depth of six or nine inches with the plow, will aid materially in bringing into action such inert properties as will promote a vigorous growth of plants and vegetables. Manure thus applied has a powerful mechanical action on soils, and the beneficial or prejudicial influence produced, may be attributed as much to this agency as to that of affording a direct supply of food for their sustenance.

The mechanical action of manures on soils, of course greatly depend upon the quality and condition of the soils on which they are intended to act. This fact should be duly considered in connection with the manuring of land for the wheat crop. The wheat plant is decidedly the most precarious to cultivate, of the cereal plants, and hence a greater degree of judgment should be employed by those who engage extensively in its cultivation. In northern Europe, the heat of summer is less severe than in the same degree of latitude on this continent, and consequently a much longer period is given the wheat crop to mature and ripen, and hence the disease known among us by the appellation of *rust*, is scarcely known in the best wheat growing districts of Europe. It is well known by all wheat growers, that cool dry weather during the month of July, and up to the period of wheat harvest — or from the time that the wheat plants come into ear, until they arrive to full maturity — is most favorable for an abundant harvest of wheat. Such weather has just the opposite influence with Indian Corn and most of the other cereal plants. The cause of this somewhat strange phenomenon, may be tolerably correctly reconciled by examining the peculiar habits and constitution of the wheat plant. A minute enquiry into this matter, will probably be made in discussing another branch of this subject—and in the mean time the fact should be remembered, that the plants of wheat have strong roots, which strike to a great deph into the ground, and send forth an abundant supply of food through the sap vessels, which impart either a healthy or sickly growth, just in ratio with its quality and adaptation for this class of plants. Warm humid weather is the most favorable for a vigorous growth of plants, and vegetables—when weather of this kind prevails to a considerable extent, between the periods that the wheat crop comes into ear and ripens, the consequence will be a strong growth of straw, and probably disease. The disease produced from the foregoing peculiar state of the atmosphere would be either mildew or rust. The latter, by far the most prevalent on this continent, is mainly engendered by too great a flow of juices or food through the sap vessels of the wheat plants. The outer covering of the straw being of very weak structure, when the sap vessels become overcharged with food, rupture and premature decay immediately follows. The state of the atmosphere and climate doubtless has much to do in effecting this work, but the soil also has a great influence, in preventing or promoting this disease. It is for this reason that Indian Corn may be profitably grown as a preparative crop for either fall or spring wheat.

The manure applied to the soil for the corn crop, will have undergone a thorough state of fermentation during the process of cultivation, and as the maize plant requires a different quality of food to bring it forward to maturity than is required by the wheat plant, the latter will be more apt to be free from disease, if sown after a well cultivated crop of Indian Corn, than if the land had been summer fallowed purposely for that crop. A clover or timothy sod well plowed, and liberally manured, is the best possible state that the soil can be in for Indian Corn. If the hills be planted in rows four feet apart both ways, there will be no difficulty in cultivating this crop entirely with the horse cultivator, and shovel plow. By the free use of those implements the ground may be made as clean as if it had been summer fallowed, and besides the profit of the corn crop will pay the whole expense incurred in the cultivation and management of the wheat crop.

An acre of Indian Corn managed in the manner proposed, will yield in an average of cases upwards of 40 bushels of marketable grain per acre. This at the lowest calculation is worth 50 cents per bushel, as an article of export, which, in addition to the corn stalks for winter provender for horned cattle, would give a net profit of twelve dollars per acre. When it is intended to sow wheat after corn, the latter crop should in all cases be harvested and drawn off the ground, a short time before the crop is thoroughly ripe, by which means more time will be given to prepare the land for the wheat crop, and the fodder will also be much more valuable than if allowed to get dead ripe before being harvested. When the proper season arrives for the practical operations on the farm, suited for the cultivation of the maize plant, full directions will be given, for the proper performance of the business in all its details.

In our next issue, the cultivation of the clover plant as a preparative crop for fall wheat will probably receive attention at our hands.

UNSEASONABLE WEATHER.

THE past month (December) has been seven degrees warmer in Philadelphia and farther south, than any previous December in 57 years. This high temperature, (now the 16th January, it is up to summer heat,) in Augusta, Ga., has caused a good deal of vegetable and animal matter to decompose in this warm climate, and induced Cholera and other bilious diseases. Very few duly appreciate how large a portion of sickness in the United States springs directly or indirectly, from noxious gases diffused in the water drank, or the air inhaled into the lungs. Farmers are nowhere particular enough to collect all the volatile and soluble elements of plants and animal excretions, which are lost in rivulets and poison the atmosphere, and use them as manure, by fixing them in the surface soil. A dead sheep cut up and buried a small distance under loam or earth will not smell offensively, because the soil condenses and holds for a time at least the mephitic gases. In all cities there is a prodigious waste of most concentrated and valuable fertilizers, which too often breed pestilence. Charcoal, leached ashes and gypsum mixed with night soil will do wonders on all crops. The winter is a good season to collect the raw material for abundant harvests. Study the deficiencies in the land, and remedy the same.

RETARDING THE GROWTH OF FRUIT TREES.

Mr. Editor:—Can the blossoming of Peach Trees be retarded by any means affecting their roots *only?* Straw, coarse manure, &c., laid round the roots in winter will retain the frost in the ground several days, and perhaps several weeks after it is out of the ground not so covered. But will the blossoming of the tree be thereby retarded?

If the blossom buds are in a temperature sufficiently elevated, will they expand fully and *independently of the condition of the roots'?* If they will, then the first and second questions must be answered in the negative. In the latter part of March or fore part of April last, the end of a peach limb was covered up in a pile of fermenting horse-stable manure, which was thrown into my garden. In a few days after I extricated the limb, and it was in full bloom. The blossoms appeared to be perfect, though somewhat compressed from mechanical pressure. Not a blosom appeared on any other part of the same tree, (or any peach tree in the garden,) till more than ten days after. C. Paulk.—*Honeoye Falls N. Y.*, 1849.

Remarks.—As the immediate effect of heat will rouse the vital forces of regulation, so in the same degree will frost retard it. By covering the roots with straw, leaves, or saw dust sufficiently to exclude the heat from penetrating, the vital actions will of course be retarded for some timo, and thereby the blossoming. Blossom buds will expand fully independent of the roots. We have cut branches of Peaches, Apricots, Almonds, Cherries, and even Lilacs, and put them in water in a temperate room, (the water must be changed regularly,) and in three or four weeks the blossoms were fully expanded. Of course they are not perfect.

A branch of a tree can be forced with a very good effect, independent of the temperature of the roots, (extrem[illegible] excepted.) For instance, we have seen Apricots and Peach trees trained against a wall, and in order to get a succession of fruits, part of the trees were covered with glass, (common hot bed sashes were placed against the wall,) and by the time those parts that were not covered were in flower, that part under glass had fruits nearly half grown. The ground where the trees stood was not much frozen.

The heat of horse manure *caused* the excitability of vegetable action on your Peach limb, independent of the situation of the roots.

We may as well mention here for the benefit of those who are unable to raise Apricots, Nectarines, &c., on account of the ravages of the curculio, that trees planted against a house or wall, and glass placed before them, (during the time the curculio is in existence) will prevent this "great destroyer" from operating, and a sure crop of fruits may be expected. The fruits will be earlier and often larger.

* * *

Superior Grafting Wax—The following mixture, viz;

1 pint linseed oil; 6 lbs. rosin; 1 lb. bees-wax, makes a better and cheaper wax, than any I have used made from rosin, tallow and beeswax. The oil will admit of a much greater proportion of rosin than the tallow. This wax will give entire satisfaction to those who use it—*T. G. Yeomans, in Horticulturist.*

* * *

Return of Mr. Barry.—We learn by Telegraph, just as this number is going to press, that the Editor of this department of the Farmer, has arrived at New York, on his return from Europe. He will consequently soon be "at home;" and will probably make amends, in future numbers, for any lack of attention to inquiries of correspondents during his absence.

BUFFALO HORTICULTURAL SOCIETY.

At the Annual Meeting of the Buffalo Horticultural Society, held at the Secretary's Rooms on Wednesday, February 14th, 1849, the President in the Chair, it was—

Resolved, That the Society proceed to the election of officers for the ensuing year.

Messrs. J. R Lee, B. Hodge, and C. F. S. Thomas were named a Committee to nominate officers.

Mr. W. R. Coppock, in a neat and appropriate address, respectfully declined being a candidate for re-election as President. Mr. W. B. Coleman also declined being a candidate for the office of Secretary.

The Committee reported the following list of officers, which were unanimously elected:

President—William R. Coppock.

Vice Presidents—Lewis Eaton, Orlando Allen, H. P. Potter, G. F. Pratt, H. W. Rogers, Abner Bryant, Joseph Dart, jr., W. W. Mann, Charles Taintor.

Treasurer—John R. Lee.

Corresponding Secretary—Benjamin Hodge.

Recording Secretary—C. F. S. Thomas.

STANDING COMMITTEES.

On Flowers and Flowering Plants—Messrs. C. F. S. Thommas; J. Dart, jr., and J. W. Brown.

On Fruits—Lewis Eaton, C. Taintor, and Lewis F. Allen.

On Vegetables.—H. W. Rogers, J. D. Sheppard, and H. A. Parsons.

On motion, it was resolved that the Gold Medal awarded to the Society by the State Agricultural Society, remain in the keeping of the President, to be handed over to his successor in office.

Resolved, That the Society's first and second premiums for the best display of Vegetables during the season of 1848, be awarded as follows:—To Mr. J. Keel, first premium, $5. Robert Dickinson, second, $3.

The propriety of offering premiums for the ensuing year was discussed and concurrod in. The list will be published in due time.

Resolved, That the sum of $10 be paid to the publishers of the several daily papers and of the Western Literary Messenger, providing they publish the proceedings, reports and notices of the Society. Adjourned

C. F. S. Thomas, *Rec. Sec'y.*

GENESEE VALLEY HORTICULTURAL SOCIETY.

At a meeting of the Horticultural Society of the Valley of the Genesee, held February 5th, 1849, the following officers and committees were elected for the ensuing year.

President—Levi A. Ward.

Vice Presidents—John Williams, Rochester; Alfred Fitch, Riga; H. P. Norton, Brockport; Asa Rowe, Sweden; Zera Burr, Perinton.

Corresponding Secretary—Leander Wetherell.

Recording Secretary—J. A. Eastman.

Treasurer—James H. Watts.

Committee on Fruits—P. Barry, chairman; M. G. Warner, J. W. Bissell, S. Moulson, F. F. Backus. J. J. Thomas, Isaac Hills, Edward Roggin, Samuel Miller, H. P. Norton.

Committee on Trees, Shrubs and Flowers—Geo. Ellwanger, chairman; Francis Brown, jr., Wm. King, S. G. Crane, Henry Billings.

Committee on Vegetables—Jason W. Seward, chairman; James P. Fogg, J. Rapalje, S. E. Alden, L. B. Langworthy.

Committee on Botany—Leander Wetherell, chairman; G. H. Smith, J. W. Seward, J. M. Whitney.

Committee on Entomology—N. Goodsell.

Executive Committee—Levi A. Ward, John Williams, P. Barry, Geo. Ellwanger, J. W. Seward, L. Wetherell, N. Goodsell.

* * *

Wire Fence.—Our Seneca Falls friend, who inquires for information on this subject, is referred to the articles of Mr. Adams, in this and the January number of the Farmer. We think his plan the best we have received; and we are of the opinion that it will *pay*. It is best, however, for those who have any doubts to try the experiment on a small scale at first. It is our intention to test the matter the present season, or have it tested in this vicinity, and shall of course take notes in order to report the result for the information of our readers.

* * *

In Grafting take care that the bark of the graft and the bark of the stock meet and join on one side.

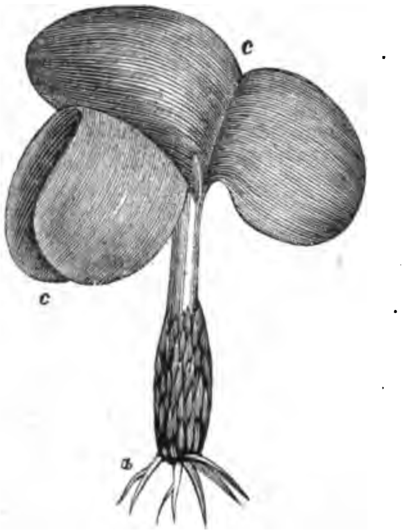
Ladies' Department.

BOTANY.—GERMINATION OF SEEDS.*

[Continued from page 53.]

Germination consists of the first chemical changes and vital action, which take place when a new plant is about to be produced.

"When the seed is planted in a moist soil at a moderate temperature, the integuments gradually absorb water, soften and expand. The water is decomposed, its oxygen combines with the carbon of the starch which has been stored up in the tissues. Thus, losing a part of its carbon, the starch is converted into sugar for the nourishment of the embryo, which now begins to dilate and develope its parts. Soon the integuments bursts, the radicale descends, seeking the dark and damp bosom of the earth, and the plumulule rises with expanding leaves, to the air and light. The conditions requisite for the germination of the seed are, heat, moisture, oxygen, air and darkness."



This cut represents a young dicotyledonous plant, with its radicale, *a*, developed; its cotyledons, *c*, *c*, appear in the form of large, succulent leaves; the plumule is just appearing as a minute point between the cotyledons.—*Rodgers' Scientific Agriculture.*

Children—Every romp with them is death to a score of gray hairs. Their games, moreover, present such a contrast to the rougher contest of bearded children, in the game of life, where money, power, and ambition are the stake, that it is refreshing to look at them and mingle with them, even were it only to realize that human nature yet retains something of its divine original.—*Selected.*

Twenty years ago it was common to trim straw bonnets with artificial wheat and barley in ears, on which the following lines were written:

Who now of threatening famine dare complain,
When every female forehead teems with grain?
See how the wheat sheaves nod amid the plumes!
Our barns are now transferred to drawing-rooms;
And husbands who now indulge in active lives,
To fill their granaries may thresh their wives.

The Mother.—A writer beautifully remarks that a man's mother is the representative of his Maker. Misfortune, and even crime, set up no barriers between her and her son. While his mother lives, he will have one friend on earth who will not listen when he is slandered, will soothe him in his sorrows, and speak to him of hope, when he is ready to despair. Her affection flows from a pure fountain, and ceases only at the ocean of eternity.

To Young Ladies—I have found that the men who are really the most fond of the society of the ladies, who cherish for them a high respect are seldom the most popular with the sex. Men of great assurance, whose tongues are highly hung, who make words supply the place of ideas, and place compliment in the room of sentiment, are the favorites. A due respect for women leads to recpectful action toward them—and respectful is usually distant action, and this great distance is mistaken by them for neglect or want of interest.—*Addison.*

Useful Knowledge.—The education of our children is never out of my mind. Train them to virtue, habituate them to industry, activity, and spirit. Make them consider every vice as shameful and unmanly. Fire them with ambition to be useful. Make them disdain to be destitute of any useful knowledge.—*John Adams to his wife.*

Apple Custard.—To make the cheapest and best every day farmer's apple custard, take sweet apples that will cook, (such as every farmer ought to have through the summer, fall, winter and spring,) pare, cut, and stew them; when well done, stir till the pieces are all broken; when cool, thin with milk to a proper consistency, and bake with one crust, like pumpkin pie. Eggs may be prepared and added with the milk if handy, though it will do without. No sweetening is necessary. It may be seasoned with any kind of spice to suit the taste—the less the better.—H.—*Ohio Cultivator.*

Cream that has been suffered to stand until rancid, or slightly mouldy, which is often the case, should never be churned; it may make very palatable cream cheese, but abominable bad butter. Cream never rises from the milk after thirty-six hours standing. This may be proved by the lactometer. It becomes more solid, and thus appears thicker, but nothing is gained in quantity, and much lost in quality, by suffering it to stand too long before skimming.

Sago Cream.—This article, so grateful to the sick is prepared in the following manner:

Take a desert spoonful of good sago, and boil it in pure water till it is reduced to a jelly. Add a cup of sweet cream, and boil again. Beat up a fresh egg very light, and pour the sago on while hot. Sweeten and spice, with sugar and nutmeg, to your taste.

To Cook a Ham.—Boil a comman size ham four or five hours, then skin the whole and fit it for the table; then set in oven for half an hour, then cover it thickly with pounded rusk or bread crumbs, and set back for half an hour. Boiled ham is always improved by setting it into an oven for near an hour, till much of the fat fries out, and this also makes it more tender.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

THE SEASON'S CALL.

"The works of a person that builds begin immediately to decay—while those of him who plants begin immediately to improve."

Shenstone, the poet and lover of rural scenery, was the author of the above truthful quotation. As soon as the work of the builder is completed, from that moment commences the slow, yet sure work of decay. Every year, every day, its beauty diminishes and its value lessens, until the new has become old, and the costly edifice is a heap of ruins. But, he who plants may see the work of his hands constantly improving until his eyes have become dim with age: he raises a monument under the shade of which future generations may repose, and bless his memory. The acorn planted in boyish sport may shade and shelter declining manhood, and sing its sad requiem while dust returns to dust.——He who not only plants, but takes good care of what he has planted, does much by his example to spread a taste for horticultural pursuits, and to correct the bad habits of his neighbors.

With this month commences the work of the Gardener and the Horticulturist. The true lover of fruits and flowers begins his work with increased knowledge and new zeal, after the long repose of winter. The "foliage, fruits and flowers," he loved when he beheld their beauty, appear now even more lovely, as he sees naught around him but leafless trees and half-frozen earth—drear as a new made grave. He considers how much even the violet and the daisy, and their companions in beauty, add to the happiness of man—and as he contemplates, sighs for their return. To such we have nothing to say—their inquiring minds—their cultivated tastes—their watchful eyes—will note The Season's Call.

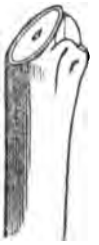
But there are those, who when admiring the neatly kept and productive gardens of their neighbors, and contrasting them with their own, resolve that another season shall witness an improvement in their own practice. The rich pass the humble cottage of the poor, and feel proud in contrasting its whitewashed planks with their own stately walls—and yet, its neat flower yard—its running roses, and honeysuckles, covering its sides and shading its windows—give it a look of beauty and a sweet-home air that all their wealth, so lavishly expended, has failed to procure. They thus learn that there are pleasures WEALTH cannot purchase, and determine to learn that art which can make a paradise of the poor man's cot.

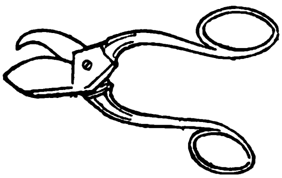
There are those too, who have considered themselves too poor to attend to aught save the necessaries of life. They pass the cabin of the poor widow—the abode of the fatherless: they behold her otherwise unsightly abode rendered pleasant by the masses of white and scarlet runners that not only hide its deformity, but characterize it as the abode of refinement. The poor thus learn there are pleasures of which POVERTY cannot rob them, and go home in love with the art that can make pleasant the abode of poverty, and beautify the widow's hut.

It is such we would remind of The Season's Call. Much depends upon commencing with the season. The following matters claim attention the present month.

PRUNING.

Although this operation can be performed at any time during winter, yet we consider the beginning of March the most favorable season, particularly for peaches and apricots. All gardening should be done with neatness, but above all things, let your pruning be neatly done. We have seen trees "*pruned*" that looked as though cattle had been "*browsing*" among them. When you wish to remove a shoot, do so by means of a clean sloping cut, at the back of a bud, as seen in the figure. As soon as the bud pushes this wound is readily healed. To do this, well, however, the operator must have a keen knife. We give a figure of a proper *Pruning Knife.* "Those things," says **Thompson**, of the London Horticultural Society, "which some men call pruning knives, blunt and notched, a sort of cross between a file and a handsaw, used for grubbing up weeds, drawing nails and trimming roots, are never seen in the hands of a man who understands his business or attends to it. To a gardener his pruning knife is as much an object of solicitude as his razor. Indeed, of the two, he would rather hack his chin than his plants." We give also a figure of *Pruning Scissors*, so well adapted to pruning roses, shrubs, and for cutting flowers. We would particularly recommend them as a useful and convenient implement for ladies.*





If trees are properly pruned from the beginning, a pruning knife will perform all the necessary thinning out, &c., annually, and the butchering system so much practiced, of cutting off large limbs, will be avoided, and the trees will not only present a more pleasing appearance, but will produce a finer crop of fruit. The "shortening in" system, recommended by Mr. **Downing**, and others, and which we have seen practiced in the South of Germany as long as we can remember, answers well for Peaches.

Grape Vines that have not already been pruned, should be attended to first; and nothing will repay a judicious pruning better. The crop will be larger, and the flavor of the grape much improved. Currants and Gooseberries should be pruned rather close, in order to get perfect fruit. Deciduous ornamental trees, shrubs and roses should now be pruned. Ornamental trees only require the decaying and irregular branches to be cut away. With few exceptions, decideous shrubs and roses require annual pruning. (For particular and specific directions for pruning, see former volumes.)

CUTTINGS.

Cuttings of hardy trees, shrubs, &c., should now be made. The following will grow with proper treatment, and will save much valuable time which would be necessarily required in propagating them by layers in the summer—besides, cuttings, as a general thing, make the best plants. They may be kept in a cool cellar, covered with sand until time to plant them. Cuttings of evergreens should be properly shaded, and kept in frames.

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* These implements may be obtained of Rapaljee & Briggs, Rochester, H. L. Emery, Albany, N. Y., and at most of the Agricultural Warehouses.

Trees, Shrubs, Vines, &c.—Quinces, Grape Vines, Gooseberries, Currants, Platanus, Populus, Salix, Kerræ, Cornus, Deutzias, Eunymus, Hibiscus, Hydrangeas, Privet, Loniceras, Ribes, Spiræas, Viburnums.

Evergreens.—Cedrus Deodora, Juniper, Arbor Vitæ, Yews, Aucusas, Box, Evergreen Euonymus, Laurels, &c., &c.

Roses.—Boursault, for stocks; almost all the Climbing Roses, Hybrid Perpetuals, Hybrid Chinas, Noisette, and other Chinese varieties

SCIONS.

Scions should be cut now. Apple, pear and plum scions will keep best covered with moist sandy loam, or sand, in a cool situation. Cherry scions we have found would grow better by laying them on the cellar floor, even should they get slightly shrivelled. We hardly ever miss one kept in this way. We cannot agree with the article published last month, and which inadvertently passed without comment, headed "*Preserving Buds and Grafts,*" by T.G. YEOMANS. We have seen thousands of scions ruined kept in saw dust; and we also saw a statement to the same effect in the Albany Cultivator, by our friend HILDRETH, whose opinion and judgment can be relied upon. There may be some instances where scions keep well in sawdust, but we would not recommend it as a safe mode of preserving them.

GRAFTING, TRANSPLANTING, &c.

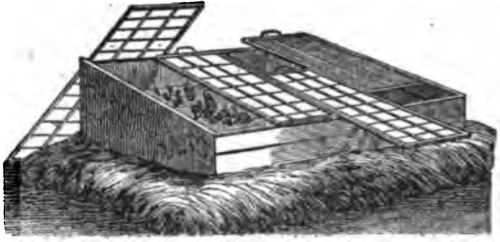
As soon as the weather will permit, cherries should be grafted. Last year we performed this operation before the frost had left the ground, with entire success. Plums should be done next, and then follow pears, apples, &c. Root grafting should be finished as soon as possible, before the busy season commences.

Transplanting of trees, &c., should be commenced as soon as the ground is in proper order. Currants, gooseberries, and cherries should be attended to first; and among the ornamentals, Daphne, Pyrus Japonica, Indus Trees, Magnolia Conspicua, and Saulangiana, Spiræas, Lonicera Tartiraca, Lilacs, &c.

Coverings of bulbous roots, herbaceous plants, strawberry and raspberry beds, as well as any thing else that had any protection during the winter, should be removed as soon as the frost leaves the ground.

THE VEGETABLE GARDEN.

HOT BEDS.—Every one should have a hot bed, if it were only to forward plants for the garden. The too prevalent opinion is, that they are expensive articles and difficult to manage, requiring the skill of the professed gardener. Both suppositions are entirely erroneous. A hot-bed may be constructed by any man of ordinary ingenuity. A frame of about 12 feet long and 6 wide, which will allow of 3 sashes, each 3 feet wide will be found large enough for any family. It should be made of common two inch plank—the back about 3 feet high, the front about half that, the ends having a regular slope from back to front. This will give an angle sufficient to throw off rain, and give the full benefit of external heat and light to the plants within. If the beds are narrower, the front must be higher in proportion. The sides and ends are simply nailed to a strong post, four inches square or more, placed in each corner. For the sashes to rest and slide upon, a strip 6 inches wide is placed across the frame, the ends morticed or sunk in the sides of the frame, so as not to cause a projection. The sashes are made in the ordinary way, but without cross bars; and in glazing, the lights are made to overlap an eighth or quarter of an inch, to exclude the rain. Such a frame, costing but a mere trifle beyond the labor will last for years, and furnish all the cabbage, tomato, celery, cauliflower, egg, pepper, melon, and cucumber plants needed—with a sprinkling of early radishes, &c. Where so large a frame may not be wanted, an old window may be used for sash, and all expense of glazing be avoided. The annexed figure will convey an idea to those unacquainted with it. One of the sashes is moved down as in admitting air and the other laid off entirely.



Hot beds should occupy a dry situation, where they will not be affected by the lodgment of water during rains or thaws. They should be exposed to the east and south, and be protected by fences or buildings from the north and northwest.

Where it is intended to merely grow plants for transplanting to the garden they may be sunk in the ground to the depth of 18 inches, and in such a case require not more than 2 feet of manure; but when forcing and perfecting vegetables is designed, a permanent heat must be kept up, and the bed must be made on the surface, so that fresh and warm manure may be added when necessary. A depth of three to four feet of manure will in such cases be wanted. Manure for hot beds requires some preparation. It should be fresh stable manure, placed in a heap, and turned and mixed several times, promoting a regular fermentation. It is thus made to retain its heat a long time; otherwise it would burn and dry up, and become useless.

The mold should be laid on as soon as the bed is settled, and has a lively regular-tempered heat. Lay the earth evenly over the dung about six inches deep. Radishes and lettuce require about a foot of earth. After it has lain a few days it will be fit to receive your plants, unless the mold has turned to a whitish color or has a rank smell, in which case add some fresh mould for the hills, at the same time vacancies should be made to give vent to the steam, by running down stakes.

Those who wish to force cucumbers, &c., should begin, if the weather is favorable, by the first of March. For raising plants, the middle is time enough.

Having been requested to furnish information in regard to the construction of hot beds, we think we have presented the matter in so plain a manner that the mere novice in gardening may construct one.

LETTUCE and **EARLY PEAS** may be sowed as soon as the ground is open.

POLES for Beans and other Climbers should be made ready for use.

OSAGE ORANGE FOR HEDGES.

It is pleasing to observe that with the general advancement of horticulture, the unsightly rail fences are rapidly disappearing, and making way for the various kinds of hedge plants. As yet the majority of farmers are not convinced of the economy of "clearing away" their favorite "land-marks," notwithstanding they require, every two or three years, as much outlay, (taking time and cost of timber into consideration,) as would the purchase of seeds and planting a hedge—and nothing adds so much to the beauty and value of a place as a well planted and properly kept hedge. We consider the outlay better than bank or railroad stock.

The Osage Orange has within the past year been the subject of much discussion in the horticultural and agricultural publications, and we have of late received several communications making inquiries as to the best mode of sowing, planting, &c., and we present such facts on the subject as our space permits.

The vigorous growth, bushy habit, shining leaves and strong sharp spine of this plant are well calculated to make it not only a very ornamental, but also a very resistive body. Our experience does not warrant us as yet to recommend it for extensive planting in the Northern States, although it is said there is a hedge near Boston that has proved quite hardy.

The appearance of the plant or tree, is not unlike the true Orange. The above engraving, (from the Horticulturist,) is a correct representation of a small branch. It is not an evergreen, but during the whole summer, and until late in autumn, the leaves are of a brilliant and shining green. The wood is very hard and strong, and the thorns so sharp and numerous that no animal will attempt to get through

The following directions for Sowing the Seed, cut from the Prairie Farmer, corresponds so well with our experience, that we cannot do better than to recommend them to the perusal of our readers—if strictly followed, almost every seed will vegetate.

"All that can be done now about the seeds is to wait till spring unless they should be covered with damp sand in a box and exposed to the weather; but we doubt if any considerble advantage would be gained by this, as the seed does not need to be frozen at all. We made some experiments last spring in sowing the seed of the Osage Orange, and also of the Buckthorn—for they are similar in their habits of germination, and require to be treated alike, and we are satisfied the best way to manage them is this: when the ground becomes well warmed—say during the last half of May in this latitude, and proportionally earlier further South—pour npon the seeds warm water, of the temperature of 140° farenheit, or as warm as that the finger can be held in it, and let it stand in this water about thirty-six hours. Then pour off the water, and let the seeds remain *wet* in a warm room, for a week. If a little earth be mixed with them they will be kept damp somewhat easier, for they must in no case be allowed to dry. Then sow in a seed bed, covering them about an inch in depth; care must be taken that the seed bed does not dry, or the seeds will be killed. If the seed is old it will not all vegetate, the mode above sketched will bring up all that will come—the first season at all events. We used boiling water on one lot of seed, but it failed to come as well as that treated as above. This mode of managing all seeds with thick shells, may be followed. Many plants may be killed the first winter, in this latitude, but we are assured they will start again."

The following directions for Planting and Training we copy from the Ohio Cultivator:

"The ground where the hedge is to be planted, should be plowed in the fall, if hard or in grass, so as to be mellowed by the frosts of winter. Set the plants in a single straight line, eight or nine inches apart; or if a very close hedge is desired, set them in a double line, one foot apart in each—six inches between the two rows, and the plants in one row to stand opposite the vacant space in the other, thus:

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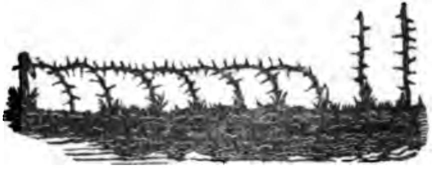
When set, cut off all the tops within about two inches of the ground. This will cause two or more shoots to spring up. The next year these are to be cut off within about six inches of the ground—which will cause many lateral shoots to form, and thus make the hedge thick and close. Or, if the plants are set in a single line, the following is a good plan:



When there are two or three stems to each plant, cut to within six inches of the ground all but one to each plant, which leave eighteen inches, then bend down the first to a curve not exceeding eight inches in height—fasten it with a peg, and then twist the top of the next plant under the curve of the first, as seen in the engraving."

EDITORIAL CORRESPONDENCE OF THE FARMER.

A RAMBLE IN PARIS.

New Year Holidays in the French Capital—The Revolution—Louis Napoleon—The Jardin des Plants, and its collection of Trees, Shrubs, &c.—Jardin d' hiuer

Paris, January 5, 1849.

The change that has recently occurred in the political affairs of France, seems to have had no effect whatever in Paris. It continues to be the same splendid city—the great resort of science, fashion, and taste. The fearful conflicts and bloody struggles, at which we shuddered in America, but a few months ago, are, in the main, entirely forgotten, and Paris seems as beautiful, polite, and gay as ever. Her glittering shops and cafes are fitted out with a taste you will find nowhere else. The theatres, promenades, and other places of amusement, are still thronged with gay and fashionable pleasure seekers. I have spent the Christmas and New Year Holidays here; and have had an opportunity of seeing nearly the whole population of Paris in the streets and promenades—a mode of enjoyment that we rarely see in America. The fine trees that were unmercifully hewn down along the boulevards, are replaced by others.

The only thing that forces the remembrace of war or revolution upon one's mind, is the army of soldiery that are stationed in every nook and corner of the city, making it, throughout, a complete barracks. In every shop and cafe, you will see soldiers; in all the public squares companies are being reviewed; in the suburbs of the city, juvenile bands are practicing their music; and every public building is not only guarded but surrounded with soldiery. I believe it is estimated that the guard in this city alone nearly equals in numbers the immense standing army of Great Britain. How France can bear such a weight beside so many other great public institutions of arts, science, charity, &c., is a problem for her most sagacious politicians to solve.

Louis Napoleon is fairly installed as first President of the Republic; and the National Assembly is quietly and industriously pursuing its legislative affairs. Very little is said of politics, except by mere politicians. How long matters may continue peaceable as at present, no one can say. The French are an uncertain people; and Louis Napoleon may, in six months, find himself as unpopular as any man in France. He has not selected for his cabinet such men as it was expected he would. He has given the preference to men no way prominent in State affairs. Perhaps in this he was wise.

Guizot has just published a small work on "Democracy in France," that meets with a good deal of approbation.

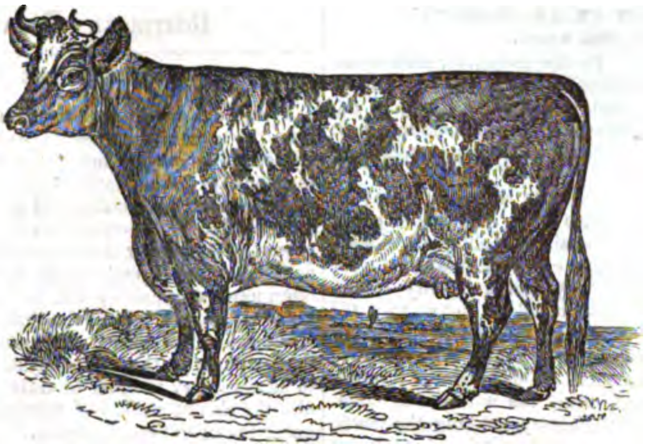
Among the multitude of attractions presented to the stranger here, the *Jardin des Plants*, has been to me the most interesting.

The immense collection of trees, plants, and animals here has been accumulating for upwards of a century—since the days of Louis XIII. I spent a day in it; and I could have spent a week delightfully. Indeed, I had but a passing glimpse at the various departments. I have visited no botanic garden so satisfactory to the student or visitor as this. In those of England they usually aim too much at producing a fine landscape, instead of arranging plants in such a way as to be readily seen and examined by all. Here each family of plants occupies a separate bed or compartment; and all are legibly labelled. The original plantation of trees occupies a beautiful hill, commanding a prospect of the whole houses and gardens of the institution, and the adjacent parts of the city. Here is a noble cedar of Lebanon, planted by Jassieu, in 1735; it is about 12 feet in circumference. There are also many young ones, ten or fifteen years old, that are very fine. I also saw many fine specimens of the new and rare pines, such as *excelsa, sabiniana*, &c.; also a beautiful tree of the new and much-admired *taxodian sempervirens*—one of the most elegant evergreen trees I have seen. The largest and oldest Pawlonia in Europe is here. It is now twelve to eighteen inches in diameter, and covered with blossom buds. I noticed, also, fine specimens of several of our American oaks—of our White Pine, Buttonwood, Hemlock, &c. I saw a Weeping Sophoro here that is remarkably graceful, and must occupy a prominent place among such elegant pendulous trees as the Ash, Willow, Birch, &c.; and, by the way, I have seen a new Weeping Birch, Weeping Willow, Black Weeping Thorn, Weeping Euonymus, and some others that will give us a most interesting collection of trees of this habit. In the Conservatory and Green House of the Jardin des Plants, are fine specimens of rare Palms, &c.; but I had little time to see them; and cannot now give you a detailed account of them. In the fruit department I was much pleased with the pear garden. Indeed, the pear trees are famous all over France and England, amongst cultivators, as being the best managed specimens known. The superintendant of this department, M. Cappe, has had the honor of managing his pear trees, as pyramids, better than any other in Europe; but I have seen better managed trees than his, and shall speak of them in future.

These are, certainly, beautiful models, and cannot fail to please all who see them. They are just what all garden pear trees should be in shape. They are planted in rows ten feet apart, and eight feet apart in the rows; between each drill is a small plot of strawberries; and between each bed is a walk of three feet; so that the bed itself is about six feet wide. The trees are, perhaps, eight or ten years old; about a foot in diameter; most of them ten to twelve feet high. The first tier of branches are within a foot or less of the ground; the next, two or three inches above it; and so on, forming a symmetrical pyramid. They are all on quince stocks. Another of the luxurious and delightful places of public amusement, is the *Jardin d' hiver*, an immense structure of glass, over 300 feet long, 200 feet wide, and 54 feet high. It is filled with fine plants. The largest Norfolk Island Pine in Europe is here, brought from the Jardin des Plants. It is now about forty feet high. Connected with this is a fine collection of paintings; and concerts are held in it once a week, to which the admission is very moderate.

Of the flower market, and many other things, I must tell you at a future time. P. B.

Report of the Ohio Nurserymen and Fruit Grower's Convention.—We are indebted to M. B. Bateham, Esq., Editor of the Ohio Cultivator, for the above. It is a pamphlet of 64 pages, and contains much practical information. It is the most complete pomological report that has been published in this country, and Mr. Elliott deserves much credit for the industry and skill displayed in compiling it.



THE IMPORTED AYRSHIRE COW "ALICE."

AYRSHIRE CATTLE.

It was our intention to give, in this number, an article embracing the history and qualities of this breed of cattle, illustrated with two or three portraits furnished for that purpose; but our pages are so crowded that we have only room for a brief notice.

The above is said to be a fair portrait of the imported Ayrshire Cow *Alice*, owned by C. N. **Bement**, Esq., of Albany—and will convey a good idea of the distinguishing points of a properly formed cow of that breed. *Alice* was awarded the first prize at the State Fair at Utica, in 1845. In a notice of her, published in the Journal of Agriculture, for August, 1848, Mr. B. says:—"Alice is now ten years old, has a calf by her side, and fills a common sized pail with milk night and morning, averaging from 18 to 20 quarts per day."

In his valuable treatise on "Domestic Animals," Mr. R. L. **Allen** says:—"The Ayrshire is a breed that has been much sought after of late years, from their reputation for fine dairy qualities. The milk is good both in quantity and quality, yielding, according to a recent statement of Mr. Tennant, of Scotland, who owns a large herd, fifteen quarts per day during the best of the season, twelve of which made a pound of butter. The product of the latter averages about 170 pounds per annum to each cow. Another authority says, on the best low-land pasture, a good cow yields nearly 4000 quarts per year. This is a large quantity, and implies good cows and extra feed."

Mr. **Sanford Howard** of the Cultivator, (who is considered good authority on the subject of cattle), thus closes an article on Ayrshires:—"Our conclusion is, from what we have seen of the various breeds of cattle, that if we wished to obtain a stock for the production of the greatest quantity of butter in proportion to the cost of keep or food consumed, we should make one trial at least with a selection of Ayrshires."

According to **Youatt**, "the origin of the Ayrshire cow is, even at the present day, a matter of dispute; all that is certainly known about her is, that a century ago there was no such breed in Cunningham or Ayrshire, or Scotland." **Quade**, who wrote the Agricultural Survey of Jersey, asserts that "the Ayrshire was a cross between the short-horned breed and the Alderney." And Count De Gourcey seems to be of the same opinion, as he remarks that "there is a considerable affinity between the two breeds." But Mr. **Robertson**, in his Rural Recollections, conjectures that they are either of the Holderness breed, or derived from it—judging from the varied color, or from somewhat better evidence, the small head, in which they bear a striking resemblance to them.

MANAGEMENT AND PROFITS OF POULTRY.

BY H. S. CHASE, M. D.

Messrs. Editors:—Having seen several articles lately in the Farmer, in regard to the profits of keeping Hens, I am induced to give you briefly, my experience on the same subject.

On the 27th of March, 1848, I purchased four hens and one cock, and kept them until the 15th of November, when I killed them. During that time I received three hundred and eighty-six eggs, as the result of their laying. I fed them on grain which I purchased at the stores—seven pecks of corn at 75 cents per bushel, and one peck of oats at 50 cents per bushel. The account will stand as follows:

386 eggs, average price 12 cents per dozen,		$3 86
7 pecks corn at 18¾ cents per peck,	$1 31	
1 peck oats,	12—	1 43
Nett profit of 4 hens for less than 8 months,		2 43

Average number of eggs laid by each hen,...96

My family is very small, which will account for the limited scale on which I tried the experiment. The fowls had the liberty of a barn, in which they were constantly kept, excepting about an hour before sunset, when they were let out; a part of the floor was taken up, however, that they might have constant access to gravel. Corn, lime and water were kept in vessels, where they could help themselves, at any time. I occasionally gave them grass, chickweed, &c., which they ate greedily.

As I need so small a number of fowls for my own use, I make a practice of killing them in the fall, and making a new purchase every spring, rather than be at the trouble of taking care of them through the winter. If farming was my profession, I should keep three or four hundred hens. No stock *pays* as well as this. *Woodstock, Vt.*, 1849.

BENEFIT OF UNDER-DRAINING

BY ADIN MANLY.

Messrs. Editors :—In the December number of the Farmer my attention was called to the subject of Draining Lands, and believing the subject too little practiced or understood in this country, with your leave I will give you a trifle of my experience in Under-Draining.

I have now more than forty acres of wheat on which there is not a surface drain, the whole being under-drained. It is some six or eight years since I began the work. My first experiment was on a lot of about twelve acres, very wet and miry in the spring, so much so that we could not get on to it till late. It being more particularly designed for spring crops, it became necessary to have it drained.—Accordingly we commenced an under-drain through the dampest part first, until the whole was done. The result was most satisfactory, making the whole dry early in the spring, and rendering the clayey parts friable and easy to cultivate. During a freshet the water will run a day or two on the surface and then all disappear. Streams running from the road and other fields, coming in contact with the drains, immediately disappear. I have observed in wet weather the water would be running out at the lower end of the drain when no water was to be seen on the surface. I have been draining more or less for a number of years, with the very best results.

It is observed in digging drains that the subsoil is full of veins or water-courses, conveying the water considerable distances. I once observed, in digging a drain some thirty or forty feet distant from a small pond of water that had stood a long time, that when we got nearest to it, the subsoil which before had been dry was full of water and commenced running off, and in a few hours the pond was all gone. In addition to what is already stated, I have found a never failing spring of water, which by using about fifty rods of lead pipe, is conveyed to the lane where it is convenient for stock, and teams going to and from work—the benefit of which will pay for draining the whole farm.

Many other advantages of draining might be named, but enough for the present. This being the first communication ever sent by me to an editor, I will wait and see its fate. *Clarkson, N. Y.*, 1849.

Our friend acquits himself well for a beginner. He apparently understands that plainness and brevity are the essentials in writing for an agricultural journal. Now that his hand is in, we shall be glad to receive a brief statement of his mode of constructing drains, &c.

Bone Dust.—An experiment, tried by Mr. Mortimer, of Silverton, furnishes a remarkable proof of the efficacy of this manure. At a recent meeting of the Netherexe Farmers' Club, Mr. W. Strong, of Powhay Mills, offered to give some bone dust to any agriculturist, to be tried against guano. Mr. Mortimer took the offer, and manured a piece of land, one part with bone, another with Peruvian guano, and a third portion with farm-yard dung, leaving a small strip without any dressing. The whole was planted with turneps, and we are assured by an agriculturist who has seen them, that while on the boned ground there are turneps larger than his hat, the part left unmanured has not one so large as his finger. The guano crop is finer than the dung turneps, but by no means equal for the size, though the superior, in thickness and rapidity of growth, to that grown where bone manure was used.—*Mark Lane Express.*

Veterinary Department.

PHYSICKING THE HORSE.

When a horse comes from grass to hard meat, or from the cool air to a heated stable, a dose, or even two doses of physic may be useful to prevent the tendency to inflammation, which is the necessary consequence of so sudden and great a change. To a horse that is becoming too fat, or has surfeit, or grease, or mange, or that is out of condition from inactivity of the digestive organs, a dose of physic is often most servicable; but the reflecting man will enter his protest against the periodical physicking of all horses in the spring and autumn, and more particularly against that severe system which is thought to be necessary in order to train them for work, and also the absurd method of treating the animal when under the operation of physic.

A horse should be carefully prepared for the action of physic. Two or three bran mashes given on that or the preceding day are far from sufficient when a horse is about to be physicked whether to promote his condition or in obedience to custom. Mashes should be given until the dung becomes softened A less quantity of physic will then suffice, and it will more quickly pass through the intestines, and be more readily diffused over them. Five drachms of aloes, given when the dung has thus been softened, will act much more effectually and much more safely than seven dramchs, when the lower intestines are obstructed by hardened fæces.

On the day on which the physic is given, the horse should have walking exercise, or may be gently trotted for a quarter of an hour twice in the day; but after the physic begins to work, he should not be moved from his stall. Exercise would then produce gripes, irritation, and possibly dangerous inflammation.—*Youatt.*

Cure for Heaves in Horses.—A farmer tells us that he has recently cured two of his horses, which had the heaves badly, by the use of the following remedy: To three quarts of sweet milk add a teaspoonful of sulphuric acid, (oil of vitriol,) and mix with the horses' feed. Give at first three times a week, and afterwards once or twice as there may seem occasion for a few weeks longer. Our informant says there was little appearance of the heaves after the first week.—*Christian Alliance.*

Lame Cows.—*Mr. Editor:* In 1802 or 1803 my father had about 44 head of cattle; the foot ail got into the stock, lost two oxen and one cow before we found a remedy; the hoof began to crack off at the back part and kept on gaining till it came off. We took a fine toothed saw and cut the point of the hoof off so that the hole was sufficient for it to discharge, and put on some tar or other healing ointment; the complaint begins in the hoof and cannot find any other way to discharge but to crack off; the back part without the point is cut off; the inside is dead and rotten and emits a great stench when cut off. We did not lose any after cutting off the point.—*Mass. Plowman.*

Snow Balls in Horses Feet.—David Thomas, in the Albany Cultivator, says that soft soap well rubbed into the bottom of the hoofs when clean, and before the horses leave the stable, will prevent the collection of balls of snow.

Spirit of the Agricultural Press.

MAPLE SUGAR.—A good man will make six or seven hundred pounds in three weeks. The man that took the premium at Auburn in 1846, kept all vessels clean. He run the hot sugar into conical vessels, having a half inch hole, plugged at the bottom, until the sugar was thoroughly hard; then put three layers of woolen cloth on top, and poured on a pint of water every morning for three weeks in succession. The water looked like brown molasses, and the sugar when done, like loaf sugar.

EARLIEST FOOD FOR BEES.—In a conversation the other day with a worthy and observing farmer, he remarked that the earliest food for bees, in the spring, is maple sap. He states that he has seen them gather round the sap troughs, in the woods, during the warm days in the spring, before the buds or tassels of the willow and other trees and shrubs had put out, sipping and making themselves glad with the sweets that they find there. It wouldn't be a bad plan, if a person had any maples in the vicinity of his hives, to tap them for the use of his bees.—*Maine Farmer.*

A GOOD SUBJECT FOR PREACHING.—We learn from the Birmingham (England) Gazette, that the late Mr. Thomas Ingraham, of Ticknell, near Bewley, by his will left a legacy, the interest of which is to be applied to procure three sermons in as many different churches, in or near Birmingham, yearly, "on the kind and merciful treatment of all dumb animals, but more especially that of the horse," and "that on Monday, previous to the preaching of such sermon, notice be inserted in the Birmingham Gazette, requesting the masters of families to direct their servants, having the care of their horses, to attend divine service on that day." It would be a good subject for preaching in this country, by men who can preach truth and duty without the stimulus of a premium from vested funds.

LARGE PRODUCTION. — Mr. Allen Dyer, residing in Byberry, this county, gathered and thrashed this season, from five bushels sowed, *ninety-three and a half bushels of wheat*, exclusive of the gleanings. The wheat was of the variety known as the Genesee white wheat, recently introduced into this neighborhood by George M. Ivins, and weighed sixty-six pounds to the bushel! With such a result as here recorded, this must be a most valuable variety of wheat, and ought to be generally known to and used by our farmers.— *Germantown Telegraph.*

DUTY ON AMERICAN WHEAT.—After the 1st of February, 1849, the fixed duty on wheat in England is to be one shilling per quarter, or about three cents per bushel; on flour it is to be four pence half-penny per cwt., or nine pence per barrel, of 200 pounds—equal to about eighteen pence per barrel.

EFFECT OF DOMESTICATION ON BIRDS.—Professor Low, in speaking of the effect of domestication on birds says, "They lose the power of flight by the increase of size of their abdomen, and the diminished power of their pectoral muscles and other parts of their body are altered to suit this conformation. All their habits change; they lose the caution and sense of danger, which, in their native state they possessed. The male no longer retires with a single female to breed, but becomes polygamous, and his progeny lose the power and the will to regain the freedom of their race."

CURIOUS MODE OF GRAFTING THE GRAPE VINE.—A gentleman in the neighborhood of Oporto, split a vine shoot, (white grape,) very carefully down the middle, cutting the bud in half, and then split a corresponding shoot on a black vine, and united them as in common grafting, and after many experiments, succeeded in making the graft grow, and the produce of the vine was white and black fruit on the same bunch, and on others variegated fruit.—*Foreign paper.*

A GREAT PRODUCT.—The Newark (New Jersey) Advertiser states that a farmer has raised this season on his farm at Clinton Place, in that vicinity, 603 bushels of white, or Belgium carrots to the acre—an amount of produce never exceeded in that climate.

TO QUIET BEES.—A correspondent of the Ohio Cultivator says that a little alcohol or almost any kind of ardent spirits, placed on the bottom boards around and under a hive of belligerent bees, will allay their fury, and cause them to cease fighting. If an article which sets the human race by the ears, will produce peace and harmony in a hive of bees, the fact certainly is anomalous.

RELATIVE COST OF MATTRESSES. — *Hair Mattresses.*— These are generally sold by weight, and cost from 50 to 75 cents per pound; 30 or 40 pounds will cost $15 to $20.

Wollen Mattresses.—30 pounds of wool, at 30 cents per pound, $9 ; 15 yards of ticking, at 12½ cents per yard, $1 50; labor, thread, &c., $2.75—total, $13.25.

Feather Beds.—40 pounds of feathers at 30 cents a pound, $12.00; 15 yards of ticking, at 12½ cents per yard, $1.87½. labor, thread &c., $2.75—total, $16.62½.

Moss, or Corn-shuck Mattresses, ready made, $12. The labor of properly preparing the shucks constiutes its main cost, and which cannot be done for less than the above price, all materials furnished.

Cotton Mattresses.—30 pounds of cotton, even at 8 cents per pound, $2.40; 12 yards of ticking, at 12½ cents per yard, $2.50; labor, thread, &c, $2.75—total, $6.65.—*N. O. Paper.*

RICH DAIRIES.—The Prattsville (Green Co.,) Advocate says: "One day last week, no less then 280 butter wagons passed through our village; and one day this week as many more—making in two days 560. The average number of firkins was 20 for each wagon making a total of 11,200 firkins of butter. This multiplied by $15, the average value of a firkin of butter, amounts to the large sun of $134,000—and all from the dairies of Delaware and Otsego,

IMPROVED STRAINERS FOR PAILS.—Mr. William Cooley, of Geneva, N. Y., has invented and applied for a patent for a new and useful improvement of attaching a strainer to milk pails, which appears to be as valuable as the improvements lately made on churns. His plan is to have the strainer fit on to a tube or spout on the pail by a screw or slide, so that it can be put on and taken off at pleasure, thus rendering the strainer easier cleaned, and at the same time one strainer will answer a number of pails better than a sieve, and at one-fifth the expense.

CULTIVATION OF COTTON IN AFRICA.—It is said that an association formed at Graham's Town, in the Biritsh colony at the Cape of Good Hope, for the purpose of promoting the growth of cotton in the colony, intends to send immediately to the United States for a few of the most approved gins, and to provide also a supply of those varieties of seeds which are supposed to be most suitable to the soil and climate of the colony.

WEEDS IN GRAVEL WALKS.—For more than 10 years I have used salt (but not in solution) for destroying and keeping down weeds in my gravel walks, with perfect success, and without perceiving that the application acted as a stimulant to reproduction. The contrary is the case. I sow the salt by hand in dry weather, and sweep it about thin, and as regularly as possible. I have seldom occasion to do this more than once in twelve months.—*English Paper.*

HOW TO CATCH HAWKS.—The following method for destroying these pests to the farmer is given by S. Webb, Esq. of Waldo county, Maine:

"Erect a pole, twelve or fifteen feet high, in a place where there will not be anything else near for them to light upon, and upon it set a common fox-trap on which they will alight. A strong rat-trap will answer the purpose, by tying it to the pole lengthwise, with the jaws raised above the end, the pole being a little leaning, so that the jaws will not fall together. When the hawk is taken, tie it on the ground near the pole, and its mate will be in the trap in a short time. The season is near for the hawks to re-appear, and if farmers do not wish to have their chickens destroyed by them, they will do well to adopt this method of putting a stop to their depredations.—*Scientific American.*

HOW IT IS DONE.—The editor of the Mass. Plowman, speaking of the progress of improvement among the farmers of the Old Bay State, thus explains the manner in which it is done:—

"Farmers *read* vastly more on the subject of farming than they have ever done. The prejudices against written agriculture are fading away as fast as farmers of practical knowledge are coming forward and giving the results of their own experience. They hold meetings and reason together on various matters relating to their business, and none can fail to improve by intercourse and free converse on any branch of farming."

TO TEACH A HORSE TO LIE DOWN.—First with some soft handkerchief or cloth tie up one fore leg; then with a stick tap him on the other and say "kneel." Sometimes by rubbing him on the head and patting him on the leg, you will induce him to lie down.—*Domestic Animals.*

Editor's Table.

To Correspondents.—Communications have been received, since our last, from Myron Adams, H. Y., H. S. Chase, M. D., Horace L. Emery, R. B. Warren, Adin Manley, *, C. Paulk, E. F., Alvin Wilcox, S., L. Wetherell, B. Allen, Utilitarian, E. Hurd, B. F. Sweet, L. E. B., John Sheldon, F. W. Lay, W. E. W., J. Wells, J. H. Beech, M. D., F. Hurd, W. Hodge, S. W., J. A Pease, J. B. Ellis, Subscriber, J. G. Anthony, J. W. Dickinson, A. W., D., Clark Glidden, Arista, S. P. Chapman, Fenner, P. Palmer, R. K. Taft, Jas. P. Knowles, Henry C. Stoddard, W. B. Wheeler, J. Frye. jr., A. Western Farmer, W. S. Tupper, B. S. Crofoot, L. H C., Spencer Daniels, W. J. Pette, W., J. H. W., A Subscriber, J. Gibbons, and C. L. Chappell.

Several articles from correspondents, in type, but necessarily deferred—and a large number on file for publication.

Acknowledgments.—We are indebted to J. W. Lincoln, Esq., of Worcester, for a copy of the "Transactions of the Agricultural Societies of Massachusetts for the year 1847"—and for the transactions of the Worcester County Agricultural Society for the year 1848.......To Col. B. P. Johnson, for a copy of the Address delivered by Hon. L. F. Allen at the recent Annual Meeting of the N. Y. State Agricultural Society.......To Munn & Co., publishers of the Scientific American, New York, for a pamphlet copy of the American Patent Laws.......To J. R. Powell, Esq., for "Catalogue of the Mt. Airy Agricultural Institute, Germantown, Pa.; also an Essay on "Lime and Marl; their Agricultural uses" —by Jas. Hyatt, Chemist of the above named Institution. ....To Wm. Wood, Esq., of Canandaigua, for "Report of the Meetings of the Association to promote Spade Husbandry, and Stall Feeding, on the estates of the Earl of Dartmouth, in Yorkshire, England.".......Also to Members of Congress, Officers of Agricultural Societies, and several unknown friends, for various documents, pamphlets, &c.

Wool Growing and Stock Raising in the Mountains.—The article on this subject, in the December number of the Farmer, has caused considerable inquiry. We have been unable to answer, by letter, the various inquiries propounded, for the want of both time and proper information—but have receieed from the senior editor, now at the South, an article in answer to those who have inquired upon the subject. The article was received too late for insertion in this number, but will be given in our next.

An Example.—A young man thus writes us from the Green Mountain State:—"Having been a subscriber the past year, I wish to continue the Farmer, as I am fully aware of its value. I am a young man; farming is the occupation I have chosen, and I wish to become a good and successful farmer. I think your journal will aid me very much, and I enclose you $1, the subscription for two years in advance, I am a hired man on a farm, and will inform you if I change my residence."

We predict that, extraordinaries excepted, the writer of the foregoing extract will, ten years hence, be the possessor and intelligent cultivator of a farm worth more than a trifle of California sand. We wish young men of the same views were more numerous in this nation of farmers. There is undoubtedly a "better time coming" in this particular—but the apathy and prejudice of many *fathers*, on the subject of *printed light*, precludes us from specifying the period.

Direct Testimony.—A subscriber in Oakland County, Michigan, writing relative to his last crop, says:—"I shall have of wheat, barley corn and oats, (principally wheat,) on 43 acres, about 1750 bushels.—For the continued increase of my crops, *I am mainly indebted to the agricultural works and journals.* My neighbors say it is *luck*, but they have the same sun, soil and rain. They think they can cheat the land, and not have it cheat them in return—but in this they will be mistaken."

This "lucky" farmer usually grows from 40 to 43 bushels of wheat per acre, and other crops in proportion; while the crops of his "unlucky," anti-book-farming neighbors are annually decreasing—becoming "small and beautifully less." Comment is unnecessary.

Read the advertising department, or cover of this number. You will find something interesting, and which may prove valuable. The cover does not increase the postage on the Farmer—which please bear in mind. The postage on both sheets, unstitched, is the same as on a single newspaper.

Encouragement—*Progress.*—The accessions to the subscription list of the Farmer, during the past month, indicate that the cause of improvement is making rapid progress throughout the country. Agricultural books and periodicals are receiving favor with the most prominent and intelligent persons engaged in rural pursuits; and such works are creating a salutary influence among those who, through ignorance or prejudice have hitherto denied their usefulness. We might fill this whole paper with extracts from letters recently received, in favor of Agricultural publications, societies, &c., and containing gratifying evidence of the onward march of improvement in numerous sections of our widely extended country. Among various similar epistles, received within a few days, (written by gentlemen of different professions, but principally farmers,) we extract the following from a distinguished Clergyman now residing in Central Michigan—the Rev. Anson Tucker:

"Enclosed I send you two dollars for the Farmer, for 5 years in advance. Though not engaged in Agriculture, yet I look monthly, with great interest for the appearance of your exceedingly interesting and valuable journal—and as the science you are laboring to promote constitutes the grand basis of our national prosperity and glory, I hope you may be so sustained by an intelligent public that you shall never falter, never tire. I am convinced that not only every cultivator of the soil, but every *mechanic* and every *professional man*, should, as a matter of *principle*, as well as *interest*. take at least one well conducted Agricultural paper. Far better were it that such papers as the "Post" and the "Courier" should die, if possible, a thousand times over, then that one such journal should perish."

From California!—The publisher acknowledges the receipt of $5 from California, not in *gold dust*, however. No doubt the volumes of the Farmer ordered will be of great service in procuring gold—provided their contents are carefully noted and properly applied in using the plow, hoe and spade, instead of the pick-axe. So mote it be.

Speaking of sending the Farmer abroad, we will add, *par parenthesis*, that those who wish to send copies to their friends in distant sections of this country, or Europe, the Canadas, &c., can be accommodated "on reasonable terms." In such cases we only ask the club price (40 cents per copy) —adding postage if sent to foreign countries, which is 12 cents on each volume. Several of our readers hereabouts are sending the Farmer to distant friends—having somehow obtained the impression that Western New York is the source and location of the handsomest, cheapest and best farmer's journal on this continent. As to the accuracy of such an impression, which is apparently becoming quite prevalent among the readers of the Farmer, we express no opinion. It is a subject on which we beg to remain *sub rosa.*

Broome County.—In a recent letter, enclosing $10 on subscription to the Farmer, Mr. Silas S. Sage, of Windsor, writes us as follows:—"We have not in this section, until quite recently, enjoyed the facilities for market which are desirable for an Agricultural community. During the construction of the N. Y. and Erie Railroad, all kinds of produce have commanded good prices; and now we are within 12 hours travel of N. Y. City, so that if the citizens of this county turn their attention to dairying, as they probably will, I think the time is not far distant when Broome County Butter will not be many hours behind the far famed Orange County. I hope we may gain some hints from your truly valuable journal, to aid us in the selection of cows, the construction of buildings, and in procuring all the paraphernalia necessary for producing the gold, without going to dig for it in the sands of California."

— And which it shall be our constant endeavor, as it will be our pleasure, to furnish thee and all other kind friends and attentive readers of the Farmer.

A Suggestion and Request.—We wish to remind those of our readers who are interested in extending the circulation of the Farmer, that the approaching Town Meetings and Elections will offer a favorable opportunity for efforts in that direction. Those of our subscribers who can consistently do so, may aid the cause materially by taking their numbers with them to the Election, and obtaining subscriptions. It is a good time to "show the papers" to those who ought to subscribe—and we will cheerfully supply extra numbers to all whose copies are soiled or given away, on such occasions. Think of this, reader, and see what you can do for the benefit of your fellow townsmen, in thus promoting the circulation of the Farmer and similar journals.

Boys' Department.

SUGGESTIONS TO FARMER'S SONS.

BY "UTILITARIAN."

Mr. Moore :—Feeling a deep interest in the advancement of the present tillers of the soil of our beloved country, and especially for those who are soon to compose the bone and sinew of the American nation, I am constrained to give a passing hint to the thousands of boys who may do themselves the honor to read your valuable paper—which hint was called out by a failure to obtain, as subscribers to the Farmer, men who will spend dollars annually for that kind of reading herein contemplated, and who still have the effrontery to call themselves *farmers.*

Our country is, at present, flooded with a newspaper and periodical circulation unequaled by any other country on the earth — and if the whole of the matter thus poured out upon our population were of a character calculated to give such information and instruction as should be of a truly beneficial nature, what amount of good might we not rationally expect would be realized from it ? But, when we examine a large proportion of the reading thus circulated, do we find such as is calculated to be of any real benefit to our rural population, from which by far the greatest part of the patronage of the press is received ? The farthest from it possible. Instead of such matter as shall inspire a love for the useful and praiseworthy, or furnish such information as will fit them for a noble discharge of the public and private duties of life, they are furnished with the sickly productions of imagination, which are often not only useless, but polluting to the minds of youth, while they create a distaste for the more substantial productions of more worthy authors — and the only reason for their extensive circulation is, that they cost but little.

But do we look upon a thief, who steals from us a penny, with any more respect than if he had taken a hundred dollars ? This kind of trash, however, not only takes from us the trifling change we give to come into possession of it, but it steals our time, and that true force of character which constitutes the intrinsic wreath of a community, or a nation.

Will not the farmer's boys, who are soon to become the sovereigns of our extended country, strive to become men prepared to rule an enlightened nation with that wisdom which can never be drawn from works of fiction ? *February* 13, 1849.

* * *

How to Live Long. — A venerable minister who had preached some sixty-five years, being asked what was the secret of long life, replied, "Rise early, live temperately, work hard, and keep cheerful." Another who had lived to the great age of one hundred years, in reply to the inquiry how he had lived so long said, "I have always been kind and obliging, have never quarreled with any one, have eaten and drank only to satisfy hunger and thirst, and have never been idle." Above all things avoid law suits ; they impair your health and dissipate your property.

* * *

He that has never known adversity, is but half acquainted with others, or with himself. Constant success shows us but one side of the world ; for, as it surrounds us with friends, who will tell us only our merits, so it silences those enemies from whom alone we can learn our defects.

PREMIUMS FOR THE BOYS.

During the past month we have received remittances from quite a number of young friends. While we tender them our thanks for their efforts in behalf of the Farmer, we may be permitted to remark that the fact that their influence is exerted in favor of a work like ours, in preference to the tempting and too often senseless literary trash which is flooding the country, gives us greater pleasure than the receipt of the subscription money they have forwarded. It proves that their minds contain the germ, and a trifle of the fruit, of good sense and wise forethought—and certainly indicates enterprise and progress in coming manhood.

As an incentive to such of our youthfnl readers as are or may become agents for the Farmer, we make the following proposition :—To every boy or young man under 20 years of age, who will obtain 5 subscribers to the present volume of the Farmer, remitting payment according to our club terms, we will send a copy of Johnston's "Catechism of Agricultural Chemistry and Geology" — or any other work of the same price (25 cents,) which we offer in our advertisement of books. The Catechism is a valuable work of 75 pages, illustrated with engravings, &c. And to each one who obtains 8 or 10 subscribers, and forwards pay according to our club terms, (37½ cents per copy if sent to one address, or 40 cts. if the papers are directed to each subscriber,) we will give a volume of the Farmer for 1848, bound in marble paper covers and cloth back. The books can be sent by mail to any part of the country.

BOOKS ON AGRICULTURE, HORTICULTURE, &c.

For Sale at the Office of the Farmer.

The Publisher of the Farmer keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

American Farmer's Encyclopedia. $3 50 in leather—cloth $3.
American Shepherd, by Morrell. $1.
American Agriculture, by Allen. $1.
American Poulterer's Companion, by Bement. $1.
American Veterinarian, by Cole. 50 cents.
Buist's Kitchen Gardener. 75 cents.
Buel's Farmer's Companion. 75 cents
Chaptal's Agricultural Chemistry. 50 cents.
Downing's Fruits and Fruit Trees of America. $1 50.
Domestic Animals, by R. L. Allen. Cloth, 75 cts. ; paper, 50 cts.
Farmer's and Emigrant's Hand-Book. $1.
Fruit Culturist, by J. J. Thomas. 50 cents.
Gardener's Farmer's Dictionary. $1 50—leather, $1 75.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Loudon's Ladies' Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chemistry, (pamphlet editions.) 25 cents each
Parson's on the Rose. $1 50. Prince on the Rose. 75 cents.
Rural Economy, by Boussingault. $1 50.
Stable Economy, by Stewart. $1.
Scientific Agriculture, by Rodgers. 75 cents.
Smith's Productive Farming. 50 cents.
Treatise on Milch Cows. 38 cts. Treatise on Guano. 25 cents.
Youatt on the Horse, (new edition.) $1 75.
Youatt on the Pig. 75 cents.
Catechism of Ag. Chemistry and Geology. 25 cents.
The Gardener and Complete Florist. 25 cents.
Knowlson's Comple Farrier, or Horse Doctor. 25 cents.

⁂ These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired.

Address to D. D. T. MOORE, Rochester, N. Y.

THE NINTH VOLUME OF THE FARMER, for 1848, just completed, and for sale bound or in numbers, as preferred. It contains a larger amount of matter pertaining to Agriculture and Horticulture than any similar work of the same price ever published — and is illustrated with OVER EIGHTY ENGRAVINGS Price, 62½ cents bound in boards and leather — or 50 cents in marble paper, with cloth backs. It can be sent by mail.

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Market Prices of Agricultural Products.

New York, February 23—7 P. M.

Flour and Meal—Sales are to a small extent. 3,000 bbls. at 5.56 *a* 5.69 and 5.75. For pure 69 is freely paid. Included were 500 barrels in store at 5.50. Some inquiry for Western for the East. Meal is a little higher, $2.94 *a* 3$ for Jersey is asked. Rye Flour 3.44 *a* 3.50.

Grain—Wheat moderate inquiry. Sales 4,000 bu. Ohio at 1.15 and some Long Island at 1.10 *a* 1.15, Genesee 1.30 *a* 1 32. Corn 10.000 bu. N. O. at 52 *a* 55 for white southern and 62 for yellow, 65 for northern. Oats 40 *a* 42.

Provisions—Market for pork rather heavy. Sales 6 or 700 bbls. mess at 10.75 *a* 11. Prime mess is nominal at 9.87. A sale of 500 was made yesterday at 10.25. Beef is quiet. Sales 80,000 lbs. smoked beef at 15 *a* 11. Lard is heavy. No change in butter and cheese. Tallow 8¼ and quiet.

Ashes—Sales 100 bbls. Pots at 6.37, Pearls, 7.50.

Wool—Market firm and quiet.

Rochester, February 24, 1849.

Flour and Grain.—Flour $5.50. Wheat, $1.12½ per bushel. Corn 44 cents; Rye 53; Barley 50; Oats 30.

Seeds.—Clover seed, $3.50 *a* 4; Timothy, $2 *a* 3; Flax $1.

Provisions.—Pork (mess) $13 *a* 14 per bbl.—in hog 5.50 per cwt. Beef, per cwt. $5—barrel 7 *a* 8. Butter 13 *a* 14 cents; Cheese 6 *a* 6½. Hams (smoked) 7 cts. Poultry 6½. Eggs 16.

Sundries.—Hides (slaughter) 3½—Calf 10—Sheep Pelts 40 *a* 75. Salt, bbl. $1.25. Potatoes. bush., 37 *a* 50. Apples, bu. 37—dried 62½. Beans, bu., 75 cents. Hay, ton, $7 *a* 11.

To Agents, Post-Masters and Subscribers.

Agents, Post-masters and other friends of the Farmer will bear in mind that we offer Premiums amounting to OVER TWO HUNDRED DOLLARS (in Agricultural Books, Implements, &c. at cash prices,) for subscribers obtained before the 20th of April next. We have not room to publish the list of Premiums in this number, but will send it, together with show bill, specimens, &c., to all who wish to compete.

We hope that *all* of our former patrons will renew their subscriptions, and get as many new subscribers as convenient. If each of our readers will take the matter in hand—and we earnestly invite all so disposed to obtain and forward subscriptions—much may be accomplished in every section of the country. Friends, will you SHOW THE FARMER TO YOUR NEIGHBORS AND ACQUAINTANCES, AND INVITE THEM TO SUBSCRIBE?

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

The Tenth Volume of this Journal will commence on the 1st of January, 1849. In making this announcement to his Agents and the Farmers and Fruit Culturists of the country, and again asking their support in behalf of the work, the Publisher has the satisfaction of stating that the Genesee Farmer now has a circulation EXCEEDING, BY SEVERAL THOUSAND, that of any similar periodical published in America. This fact, alone, furnishes abundant evidence of the *real value* and *superior merit* of the work—for no journal, however cheap, can become and continue so universally popular, unless actually WORTHY of the substantial support of an intelligent community.

The high reputation which the Farmer has acquired throughout the United States *will be maintained*, and if possible *augmented*, during the ensuing year. To accomplish this object, no effort or expense will be spared by the Editors or the Publisher. Their aim is to furnish a *reliable* and *independent* journal—one which shall avoid and condemn *humbug* in whatever guise it may appear, and impart correct practical and scientific information on all subjects pertaining to Agriculture and Horticulture.

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☞ Post-Masters, Agents, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

⁂ The January, February and March numbers have been stereotyed, which enables us to promptly supply those numbers to all new subscribers.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to

D. D. T. MOORE, Rochester, New York.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office. See list of works and prices on preceding page.

Also—complete sets of the Farmer from its commencement, (except the 2d volume,) substantially bound, which we will sell at 50 cents per volume. These volumes are not suitable for sending by mail—but we have copies of vols. 6, 7, and 8, bound in paper covers, which may be mailed.

☞ Competiors—See advertising department for list.

THE GENESEE FARMER,

Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.
P. BARRY, Conductor of Horticultural Department.

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☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE.

☞ The Farmer is subject to newspaper postage only.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. • ROCHESTER, N. Y.—APRIL, 1849. NO. 4.

Farm Husbandry.

IMPROVED SYSTEM OF HUSBANDRY.

BY AGRICOLA.

WHEN shall we see improvement among all our farmers? We do not despair of seeing it general, if not universal. We see it already in many towns throughout the State—and what is the result? In many of these towns already, an *advance* of from ten to twenty bushels per acre of the various crops raised. This is encouraging, and should induce every farmer to lend his aid. But perhaps some readers of the Farmer will say, "what do you mean by improvement?" We answer generally—first of all, know what is your soil; if grains are your main dependence, what grains are best adapted to it. See if draining is needed—and here let me say it is much oftener necessary than farmers who have not paid attention to the subject generally suppose. If needed, see that it is done with as little delay as practicable—and we will venture to assure you, your crop from this source alone shall be increased from one-quarter to one-half. If you doubt, try it carefully on a small piece of land, beside your land on which water stands more or less during the season, and if you do not realize at least one-quarter advance, we will admit that for once, land that needed draining has not been improved.

Select your manures judiciously and apply to the crops that need the variety you make. Would not this add much to your crops? Who does not know that often a wheat crop is ruined almost by an application of fresh manure directly to the crop, which if applied to a preceding corn or root crop would have been of great value, and would have been sufficient for a wheat crop to succeed. Keep your land thoroughly subdued and let not the weeds master the grain. It costs no more to raise grain than weeds—and which is the most profitable for the farmer? Improvement then can be had by carefully extirpating your weeds, and giving the grain an opportunity to obtain all the nutriment.

Be careful in the choice of your seed. No man ever succeeded well who neglected this. It is a small matter perhaps you think. Is it? Let us see. Good and perfect seed will usually vegetate and produce much larger returns than poor half formed seeds. It will not fail to prove true as a general rule that like will produce like, and what a man sews that shall he also reap.

Let your implements be of the best kind, and wherever labor-saving implements can be introduced to aid you, have them; all helps to cheapen the cost of production and increase the profit of the farmer. And don't forget to have every thing on your farm needed for work in its place when not in use, so that half the time of your men may not be taken up in running after the utensils, which have been left where last used, instead of being in their proper place. Would not this be improvement, if properly attended to?

Keep an account with your farm—yes, with every field—and let it be carefully charged with every expense and credited with its avails, so that you can at any time know what is your condition, whether advancing as you desire, or whether the result is a loss. Change your method, if the latter is the case from year to year, and soon you will find the crop and the system of management that will pay; at all events you will know where you are, and it will be your own fault if you do not bring your books to show the balance on the right side.

Is your land suited to fruit? Then let the best kinds for your locality, adapted to market, be selected. The trees will grow while you sleep. It will be but a little time before they produce, and soon your fine apples will yearly find their way to the sea-board—across the ocean, it may be; and the balance sheet will be all right, and you be in the enjoyment of the good fruits of improvement. Is not this well worth trying?

Is the dairy your business? How much cheese and butter do you make per cow? Those who attend to their dairies as they should, and select cows suited to them, are realizing from 500 to 600 pounds of cheese per cow, and from 200 to 300 pounds of butter. Have you reached this standard? If not, is it not worth your while to make the inquiry and ascertain what is the difficulty? Now is not that an improvement which secures the return above given?

And now let us look at this matter personally. Improvements are needed—can be made—and shall they not be made? What say the farmers?—what say the boys? An answer such as would be worthy of an American farmer would be—*I will try;* and if you *try* with all the lights which experience as well as science suggest, we venture the prediction, you will succeed—and then an answer will be found to the question which commences our article.

Editorial Correspondence of the Farmer.

WOOL-GROWING AND STOCK-RAISING IN THE MOUNTAINS.

The article which was published in the December number of this journal under the above heading has excited a good deal of inquiry, and induced the writing of not a few letters both to the office of the Farmer and the writer in Augusta, Georgia. The subject is one of national importance; and will be generally acknowledged as such, when maturely considered. From the Highlands on the Hudson to the Tenessee Bluffs, on the Mississippi, there extends a range of mountains, hills and elevated plains, whose agricultural capabilities are little known, and less appreciated by the great mass of American farmers. This remark applies with peculiar appositeness to the high dividing ridges, plains and valleys southwest of Pennsylvania, which divide the waters that flow into the Ohio on the north, from those that fall into the Atlantic and the Gulf of Mexico on the south. The tobacco, corn, cotton, rice and sugar planter from Maryland and Louisiana have had little occasion to work far up-stream and settle on the table lands, and in the gorges of the Alleghany and Cumberland Mountains. The emigration of planters has set steadily in a south-westerly direction, and spread itself over the the rich bottoms and diluvions of Alabama, Mississippi, Louisiana, Arkansas and Texas. A large portion of Virginia, and parts of North and South Carolina, Georgia, Alabama, Tennesseo and Kentucky present the most inviting field for rural industry and enterprise to be found on the continent.

The writer has now spent two winters and one summer at the South; and has travelled over and studied the country with all the attention to its natural advantages and disadvantages, which he could command. So soon as one rises above the exclusive planting region on the Atlantic slope, he comes at once into a district where pure air and pure water with a mild and most agreeable climate, promise him good health and every physical enjoyment. As a general thing the soil is not rich, for if it was, the excessive growth of vegetation and its rotting on the surface of the ground would cause much sickness. If any one is so foolish as to desire a very rich soil, and is willing to pay the imminent hazard of his life, and jeopard the lives of his family to cultivate the same, it can be found anywhere along the coast from Chesapeake Bay to the Rio Grande. By going back into the highlands, you find a region perfectly healthy, where all useful grasses flourish in great luxuriance; where crystal springs and noisy brooks abound on every side; and where the husbandman can raise grapes and all other northern fruits, and at the same time escape at least two-thirds of the winter of Massachusetts and New York.

Wheat, rye, barley and oats *grow* in the coldest weather. Wheat sown in December here, is harvested in May; so are oats and barley. We have in our office a stalk of corn that has six good sized ears that grew upon it; and round turneps that weigh over 16 pounds each. That a high degree of solar light and heat is favorable to the rapid organization of all plants, when properly fed, either by nature or art, few readers have occasion now to learn. The skilful farmer can turn this increased power to organize grass, grain, roots and tubers, to a most profitable account. The northern man should have nothing to do with legitimate planting. Leave that to the worthy citizens who understand the business; but know nothing about wool-growing, making butter and cheese, nor any mixed agriculture. We are now paying two dollars a bushel for northern Irish potatoes. They are also brought from Tennessee. We have fine apples from Knoxville.

Northern hay sells here at $20 a ton, when it can be raised at one fourth of the money. One can buy fair farming land within forty or fifty miles of this city on the railroad toward Nashville at from $2 to $5 an acre. These lands have some buildings and fences upon them. They belong to planters who want to emigrate with their "force" to the richer virgin soils of Alabama, Mississippi, Louisiana, Texas and Arkansas. This tide of planting emigration, setting so constantly westward, creates a vacancy for a new race of legitimate farmers. The latter uniformly do well; for they get their land for a song; they have an excellent market at their doors, and purchase all their groceries, dry-goods and hardware as cheap as the farmers of Western N. York do.

Sweet potatoes and peaches are raised here by free white labor at a cost not to exceed six cents a bushel. Three crops of figs grow on the same tree in a season. Although Augusta is too far north to make a business of growing oranges, yet we never saw finer ones than grew in the open air in this city the past year.

The man that makes pork and beef in the Cherokee country for European consumption has about 2,000 miles freight advantage over the pork and beef at Cincinnati, which has to be sent 1500 to N. Orleans, and 1000 more round Cape Florida, before it reaches Savannah or Charleston. In 24 hours the Georgia farmer can have his on ship board in either seaport. Count up the difference in time, interest on capital, freight, insurance, danger of spoiling in the hot Gulf; and you will see the advantage of being near the sea-coast. Wool growing can be made profitable on the table lands of Tennessee; as it can be in this state. Tanning and currying leather, and getting out timber and boards in our pine forests, are truly profitable in the hands of men that understand the business. One that understood the trade of making plows and all agricultural implements, might realize a fortune in this city. It has a water power nearly equal to that at Rochester.

These things are named in answer to private letters. Manufacturing and mechanical pursuits are regarded with favor—all seek to encourage them. As a general rule money is made easily and spent freely. There is a large number of northern men here, and especially in mercantile business. Very few of them are planters. A few days ago a slave paid $2000 down for himself, wife and two children, in this city. There are scores that own good houses and lots, who are yet slaves. One in the city of Macon owns two slaves. On being asked why he did not buy himself, he said his master asked $1,700 for him; and he had purchased two men as good as himself for $1,300. All this class of negroes hire their time by the year; usually at about $75 or $80; and have all they can make by keeping horses and drays, and doing job work, which often amounts to $1000 per annum. Every change made is for the better. Both races are working upward, and will, we hope, come out right at last.

Augusta, Ga., 1849.

HINTS TO DAIRYMEN.

Four years ago the number of cows milked in the State of New York was within a small fraction of a million. It now considerably exceeds even that high figure; for the dairy business has been greatly extended since the census of 1845. No branch of Rural industry presents greater facilities for improving a farm, for increasing its capacity to keep more cows and enlarge the annual receipts of the husbandman. By carefully saving all the manure, both solid and liquid, made by domestic animals, it will be easy to raise an immense amount of excellent food for cows, on a comparatively small surface. For this purpose, corn, carrots, potatoes, pumpkins, clover and herd's grass are among the most available crops which we have seen cultivated.

The dairyman, by uniting skilful tillage with grazing, will experience little difficulty in feeding a much larger number of cows than is now generally kept in New York and Ohio. Of course, he will need more funds to purchase more cows, and more help to milk and take care of them. Many, however, who do not lack the wherewith to procure either labor or cows, fail to see their way clear, how to raise six or eight tons of sweet nutritious forage an acre, by planting corn quite thick in drills for that purpose. Like all other farming operations, this must be practiced repeatedly to be well understood. We have seen some failures, but more cases of the most satisfactory results. There is some trouble, particularly in wet weather, in curing a luxuriant growth of green maize. Being cut when most succulent, just as the kernels begin to form when the whole plant abounds in saccharine matter, it needs to be exposed to the sun, turned over, like thick new mown grass, and thereafter to be bound in small bundles and set up to make in small bunches or stooks. The Rochester City Milk Company, and other milk-producing establishments with which we have been acquainted, have found the raising this kind of forage as well as carrots, profitable. At the South green rye, oats and peas are fed to mules, horses and cows. On good land, the expense of growing additional feed for dairy cows, i. e. something beside common pastures and meadows, is much less than one who has never tried it would suppose.

A top-dressing of lime and gypsum spread over pastures and meadows in the spring of the year will often impart new vigor to the grass, and add greatly to its yield for the season, if not longer. Sometimes more grass seed should be sown, and the ground well scarified with the harrow. Ashes are particularly valuable to scatter over all fields where a good crop of grass is desired. Swamp muck sweetened with caustic lime in the form of compost, is generally worth more than it will cost, to be used as a top-dressing on meadows and pastures. Applied to hoed crops it is also valuable.

As first rate dairy cows are always in demand at fair prices, every farmer should be careful to raise all calves, particularly females, from a family remarkable for good milkers. In this way the dairies of the country will improve rapidly. Much depends on the keep of calves and heifers, and the way in which the latter are treated during the two first years they are milked, in fixing their productive value for dairy purposes. Perfect regularity in feeding, uniform kindness and gentleness, as well as milking reasonably fast and quite clean, are matters of practical importance. A young cow which is much inclined to elaborate a large flow of milk will secrete more, if it be drawn three times in twenty-four hours, and at eight hours between each milking than she would if milked but twice a day. Salt cows regularly, or have it under a shed where they may eat what they will, after having been restricted a little, till accustomed to a full supply by degrees. Have your pastures as near the milk house as practicable that your herd be not taxed with a long walk to and from their fields to the yard or cow house.

TEXAS WHEAT.—VALUE OF LIME.

It is stated by a gentleman from Corsicana, in Limestone county, that about forty thousand bushels of wheat have been raised in Limestone and Navarro counties this season. A part of this was harvested as early as the 9th of May, and it is of an excellent quality. The grains are plump and large, and the wheat, it is believed, will average over sixty pounds to the bushel. A large quantity of wheat has been raised in Trinity Valley above Dallis. The experiments in the culture of this grain, indicate that the whole region, watered by the Trinity and its tributaries above Smithfield, is as well adapted to the culture of wheat as the best wheat growing regions in the middle States. The soil, in that section, contains a large proportion of lime, and it is probably owing to the presence of this mineral that it is better adapted to the culture of wheat than the soil near coasts. There is a belt of country extending quite across Texas from the Red River to the Rio Grande, and including most of the undulating region of that country, that is as well adapted to the culture of wheat as any portion of the Union. This section comprises at least thirty millions of acres, and may at some future day, yield breadstuffs sufficient for the consumption of more that ten millions of people.

We clip the above from a Texas journal for the purpose of impressing on the mind of every reader the importance of lime in all soils, not merely for the production of wheat, but of all other cereal plants. It is most striking to note the difference in general fertility, between limestone and ordinary granite lands. The average crops of the latter, especially after a few years' cultivation, do not exceed a third of what are grown on common calcareous soils. Lime seems greatly to improve the mechanical texture of all cultivated lands, as well as furnish plants with their appropriate mineral food. It is instructive to study the reasons why such soils accumulate near the surface, so bountiful a supply of potash, soda, magnesia, sulphur, phosphorus, chlorine, soluble flint, and rich vegetable mold. Lime is not transmuted into any of these substances; but this mineral serves in a remarkable degree, and in more ways than one, to prevent their loss in premature solution, and by washing and leaching. Alumina, (the basis of pure clay,) possesses similar properties to an equal and perhaps greater extent. Hence, the strongest and most durable soils in the world, combine the two advantages of lime and clay; i, e, they are calcareous and argillaceous in their leading chemical and mechanical characteristics. Now, whilst all know that subsoils lack vegetable and animal mold and that this cold earth is peculiarly lifeless, still, there are few who are wholly ignorant of the fact that, subsoils usually contain more pure clay and lime than the pervious, and apparently richer ground above. To bring lime and clay up to the light and heat of the sun, to the chemical action of atmospheric gases, and to the fertilizing influence of rains and dews, deep plowing is the thing.

If the intelligent reader has reason to believe that his land lacks lime, from the scarcity of that mineral in his neighborhood, and the softness of the water in springs and wells, its application can hardly fail to improve the soil. If it can be had at a small price, the dose should be often repeated in the course of successive crops, that the lime may be thoroughly incorporated in the whole texture and mass of the earth. With all needful facilities for its cheap transportation, lime is so abundant in this country, that before many generations pass away, no farming district will do without this important element of fertility. The mineral which makes the Cherokee country in Georgia, the Trinity valley in Texas, and that of Genesee, in New York, so famous for yielding wheat, will be applied in due quantity, to the free sand stone and granitic soils of other regions. It is a mistake to suppose that the application of one or two small doses of lime will form a truly *calcareous* soil. Such a result can be economically effected only as the work of years, and after much mixing by tillage with the plow, harrow, cultivator and hoe. A regular system of liming carried through many seasons, on a moderate scale, will doubtless bring about a most salutary change in the strength and productiveness of the land.

Farmers should investigate the peculiarities of every kind of husbandry; and be able to distinguish closely between all practices which impair and all that improve the soil. Nothing is easier than to be mistaken and disappointed in these results. Extreme caution in trying experiments on a large scale is the only safe course; but a little experimenting will harm no one, and often brings to light some important improvement. There are many millions of acres that greatly need improvement; and still other millions whose natural fertility should be saved from any deterioration.

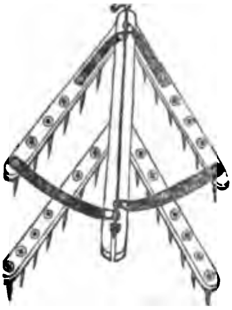
A DROP FROM THE CORNICE.

Messrs. Editors:—As I have recently become a subscriber to your valuable paper, I have, of course, become one of its readers. Although a Mechanic, and not "a Farmer," I esteem its contents of greater value than its subscription price. Now, though I may be but a small *drop* in the stream, if I chance to get into it, I will accept the invitation friend Peters has given in his fable of the Raindrop, in your January number, and come out from under the cornice; yet I have not the vanity to think that he had me "in his eye" when he gave the invitation.

As great things cannot be expected from so small a drop as I am, I will put myself in motion by trying to answer a small question, suggested by your correspondent, "G. S. G.," in your January number, though I am not an Architect. He says, in a parenthesis, "that his house looks steeper and more gothic than his drawing; though he don't know why, as the proportions are the same." He has undoubtedly drawn the end in exact proportion with the exact angle of the roof. Had he drawn a view of the end only, the roof would then have appeared as steep in the drawing as in his house; but as he has to this added a view of the side, it indicates that the point of observation is not in front, but at one side of the front, and from this position the end of the house itself must appear narrower while the height appears the same, consequently the angle of the roof would appear more acute. If these laws had been observed, the drawing and house would have appeared to have the same proportions. I will close by hoping to say something in my next to interest more directly the Horticulturist and Farmer. D.—*Albion, N. Y.*

GEDDES' HARROW.

"The Geddes Harrow, so called from the inventor, George Geddes of Tyler, Onondaga County, in this State, is considered by those who have used both, to be superior to the square harrow, inasmuch as it draws from a centre, without an uneasy and struggling motion, and is of course easier for the team. The accompanying cut is so simple that it needs no description. Being hung on hinges, it is easily lifted when in motion, to let off collections of weeds, roots and other obstructions. It can be doubled back, and is of very convenient form to be carried in a wagon about the farm. Some have teeth put in as in common harrows, simply by being driven in from the upper side; others have the teeth so made as to be let through the timber from the under side, with a washer below, and a nut and screw on the top; this avoids the loosing of teeth, by preventing them from dropping out, as in the common harrows.



There are several sizes containing more or less teeth as required. The following table shows the number of teeth in the several sizes, and their prices:

14 teeth, for one horse,	$8.00
18 teeth, for one or two horses	9.50
22 teeth, for two light horses,	11.00
26 teeth, for two heavy horses,	13.00
30 teeth, for two or three horses,	15.00

The work performed by this harrow is better, with one operation, than can be done with a common *A* harrow by going twice over the ground."

This Harrow may be obtained at the Albany Agricultural Warehouse, Albany, and at the Genesee Seed Store and Ag. Warehouse, Rochester. Also of the principal manufacturers and dealers in implements throughout the country.

An Agricultural School.—We are credibly informed that Mr. Wilkinson of Germantown, Pa., seven miles from Philadelphia, has an Agricultural School for the instruction of young gentlemen in Scientific and Practical Agriculture, and that a thorough English education, with four modern languages, is given as an adjunct to the scientific course. Every branch is thoroughly and practically taught. The school is called the Mount Airy Agricultural Institute. Its location is proverbial for health. It is said that the character and advantages of this school are not excelled by any in the Union. The Tuition year is divided into two terms of five months each; the summer term commences on the first Thursday of April, and the winter term on the first Thursday of October. The charge for tuition, board, washing, fuel and light is $100 per term, payable in advance.

Persons wishing further information relative to this school, will address the principal, John Wilkinson, Germantown, Pa. Reference is also given to the following gentlemen: Gen. P. S. Smith, Philadelphia; Thos. McElrath, Esq., N. Y. Tribune, N. Y.; Hon. Thos. Baltzell, Tallahassee, Fa., and Richard Peters, Esq., Atlanta, Ga. — *Southern Cultivator.*

THE PLOW—ITS HISTORY AND IMPROVEMENTS.

BY HORACE L. EMERY.

Friend Moore:—With what cuts I have been enabled to obtain in time, I resume the subject of the Plow, commenced in your March number.

I closed my remarks by speaking of the improvers of the plow. Among others, it is but justice to name E. G. Matthews as one of the most ingenious of the later improvers, but more particularly as an inventor of machinery by which the wood work of the plow is made with perfect uniformity and precision not otherwise attainable, and by the aid of which six to twelve men are enabled to make more and better plows than three or four times the number could make in the usual way. The effect of the use of this machinery has been to give a character to the plows made by it, and to establish the confidence of the public in their excellence. It has, also, in a great measure, been the key to the success of some of the largest establishments engaged in their manufacture.

With regard to the form of plows, much improvement has been made by combining more perfectly the power of the wedge and screw, (which, by the way, are the only two natural powers combined in the mould board of the plow). Very many patterns present a broad and thick, stunt wedge, with too much of a cross cut to the edge, not unlike that shown in Fig. 1, (of plow inverted,) while others, of later and more approved model, are thinner and more pointed, as shown in Fig. 2. This difference is observable between the American and the approved wrought iron English and Scotch plows. One great obstacle in making plows after this form, as shown in Fig. 2, has heretofore been the deficiency in the strength of cast iron when made thin and pointed and sufficiently hard. Such, however, have been the improvements in the combination of the various iron ores, as to obtain strength, with less weight and thickness, nearly equal to malleable iron. Although rather soft, this iron bears the hardening process to almost any degree, and can be used in those parts mostly exposed to wear, without endangering the strength. As this fact has become known, the cast-iron plow has become more pointed and wedge form, and the approved modern American plow will not suffer by a comparison with those of England or Scotland.

Fig. 1.

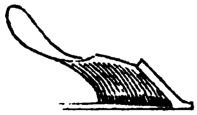
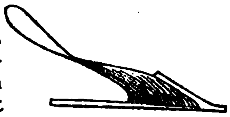


Fig. 2.

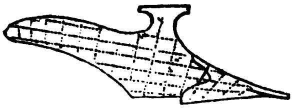


Much depends upon the curves given to the mould-board. They should be so formed as to bear the earth equally and lightly over the whole surface, and these curves carried so far as to completely invert the soil. In grass or sod land it is not desirable to break the furrow slice, and good length of mould-board is required—nearly in the proportion of width to length, as one to four—while, in stubble and tilled land, a shorter mould-board is preferred, say width to length, as one to two or two and a half; the same rule should be observed in both cases.

I have formed the opinion, from close observation, that the best form for plows (and the best plows now in use come very nearly to this standard,) is that which will lift, carry, and turn the soil in straight lines, from that point upon the forward part of the share where it first begins to rise, to the point where it leaves the mould-board. For instance, in a furrow twelve inches wide, the sward would begin to rise after the point had penetrated three to five inches; one edge of the slice would rise from this point by the forward motion of the plow, until, at the point where it leaves the hind end of the mould-board, it is twelve inches from the bottom of the furrow. What I would term the straight line would be a fulness to a straight-edge between these two points. This fulness to a straight line should apply not only to one edge of the slice, but to the whole surface of the mould-board.

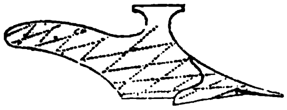
Again, to work easily and turn a smooth furrow, the slice should also be fully supported crosswise; therefore the mould-board should have a fulness at right angles or nearly so, with the straight lines before described, and as represented in Fig. 3.—When the mould-boards are so formed as to present irregular curves, or so as to lack this fulness, or to be too full, the friction becomes unequal, the draft of team and labor of plowman are increased, to say nothing of the imperfection of the work performed.

Fig. 3.



In Fig. 4 is shown a form which, although regular, is not in accordance with the foregoing description. A plow which presents the straight lines in these directions is inferior to the first in operation, in all respects. Therefore, if I am correct, a farmer purchasing a plow will find a simple straight-edge of great service in making a good selection.

Fig. 4.



Thus much for the form of the mould-board.—Another improvement now adopted in nearly all late patterns, is that of forming the share so as to renew the front portion of the plow and the landside, so as to extend the whole length and next the share. By this arrangement the strength of the whole base and front of the plow is preserved, and when the old point and landside are replaced by new ones, the original strength, form and effect are restored. The chilling process being applied to the edge of the share and the base of the landside and mould-board, those parts are not only made to wear sharp, and of three or four times more service, but actually create less friction—the difference being the same as that between steel and iron sleigh shoes upon the ground. *Albany, N. Y., March,* 1849.

[To be continued.]

Bones.—That world-renowned chemist, Liebig, says that a single pound of bone dust contains as much phosporic acid as one hundred pounds of wheat. From this we can easily perceive that there are bones wasted on every farm sufficient to manure the entire wheat crop. This, to many, will doubtless appear strange, but it is nevertheless true.

The Salt found in the great salt lake in California, is said to be superior to any now in use, for preserving butter, beef, &c. It is the strongest ever yet discovered.

Never grumble at what you cannot prevent; you have no right to grumble at what you can prevent.

EXPERIMENT IN WIRE FENCE MAKING.

BY D. KINGMAN.

Messrs. Editors:—Believing that my brother farmers feel an interest in whatever experiments others may try, whether useful or otherwise in themselves considered,—especially if facts are stated, so that they can practice, throw away, or improve upon them, as their judgments may direct—I have been induced to send you my experience in making wire fence.

During the last fall I constructed 104 rods of wire fence in the following manner: I placed red cedar posts one rod apart, the posts being sawed about 3½ inches square at the bottom, and 3½ by 2 inches at the top, and set firmly in the ground to the depth of 2½ feet. I then bored holes through the posts with a ½ inch bit—the upper one 4½ feet from the ground, and then 9, 8½, 7½ and 6 inches below, using five wires. Five inches below the lower wire I placed a board fourteen inches wide, (with a short post in the centre to which I nailed the board,) which comes near enough to the ground. I then drew the wires through the posts and strained them by means of a lever, one end of which I stuck into the ground. I then looped the end of the wire around the lever near the ground, and while one is drawing upon the top of the lever, I plug the hole tight with pins of red cedar, previously prepared. I usually strained the wires 15 or 20 rods at a time, then spliced the wires by looping and twisting the ends, and proceeded in like manner again. After the wires are in and the boards on, I take pieces of wire of the right length and make one end fast to the upper wire, and then wind it round the wires below till I come to the board through which I bore a hole and fasten the lower end of the wire; three of these wires between each two posts, thus fastening it all together.

The upper and lower wires are No. 10, and the others No. 11. I bought my wire of Messrs. Pratt and Co., of Buffalo, at $7,50 per hundred. The five wires weighed 355 pounds. The wire that I used to weave in up and down was No. 16, and cost 10 cents per pound; it took 25 pounds. My posts I bought in the log (pretty large ones,) at $12 per cord; one cord made 105 posts, the number used. It took 2000 feet of hemlock boards, which I reckon at $7 a thousand. The saving of the posts was $2,25. The cost foots up as follows:

355 pounds of wire, at 7½ cents,	$25,02
25 pounds of wire, at 10 cents,	2,50
One cord red cedar posts,	12,00
2000 feet boards, at $7,	14,00
Sawing posts,	2,25
Making the cost of materials,	$55,77

Which being divided by 104, the number of rods of fence made, gives 53½ cents as the cost per rod—aside from nails of which I kept no account.

Some of your numerous readers may be anxious to know whether such fence will answer the purpose in all cases. I can only say that mine is a road fence, and that when it was built, there was a good crop of pumpkins lying in the field along side, where they grew, and that notwithstanding many cattle and hogs made the attempt at them, they did not succeed; and my short experience goes far to convince me that no cattle, hogs or fowls will get over or through it.

Ridgeway, N. Y., January, 1849.

The above article should have been published in our February number, but was overlooked. Its facts and figures are important.—Ed.

MORE ABOUT WIRE FENCE.

BY T. C. PETERS.

My friend Myron Adams, Esq., has another good article on the subject of wire fences. As he is the only one among us, as yet, who has made the experiment, I concede to him the right to speak by authority.

But he does me too much honor where he writes me "*judge*," and I fear a wrong impression might be created if I were to leave the error uncorrected. I am not a judge, never was, and never desire to be a judge. The highest elective office I was ever elevated to, was Trustee of a School District, and some idea may be formed of my popularity when I say that I never got a single vote for re-election! Perhaps I am wrong in saying that I have never held any other elective office, for I have been several times honored by being elected President of the Genesee County Agricultural Society. I am free to say that I am prouder of that office than any other the farmers have it in their power to bestow, and am more anxious to discharge the duties in a proper and satisfactory manner.

But to the fence. I have been confined so much of the past month by sickness, I have neglected the subject entirely. Mr. Adams may be right as to the number of strands, though I cannot see the necessity of over five in four feet, for he says that is the proper height. I however won't quarrel with him. All I want is to keep the matter before the public, and ultimately we shall get something that will be reliable and useful. I am entirely confident that within ten years wire fence will be the prevailing fence in this country and abroad, because it will be the cheapest, most durable and ornamental of any that can be built. There will be failures of course, but the very necessity of the thing will force it to perfection.

Mr. Adam's practice is worth all my theory, and I learn very much from him each time he writes. He has adopted the only true method of mending, or joining the wires, and that by winding. The same method is used at the suspension bridges. I commenced agitating this subject of wire fence about a year ago, and although I have been often ridiculed and called visionary, I have not been deterred from keeping it up. I am amply repaid by the great amount of knowledge which has been thus far brought out. And before another year goes round, the building of this kind of fence will be no longer an experiment. I fully agree with Mr. Adams that farmers ought to be satisfied if they can build a durable fence for fifty cents per rod. *Darien, N. Y., March,* 1849.

GRAVEL FENCE.

O. E. Garrison, of Troy, Ill., gives in the Prairie Farmer, the following mode of constructing gravel fence. It looks quite practicable:—"Put up a wall of gravel and lime three feet six inches high, (the same way they build gravel houses) eight or ten inches thick at the bottom and three or four at the top. When the last layer is in the moulds, put in sticks (strips of lath will do) eight or ten inches long, leaving them six inches above he mortar, and sharpened like pickets; you will then have a fence four feet high that will last forever.

If you want it to look nice, take sand and lime, each an equal quantity, add any coloring matter to suit your fancy—lay it on the wall and mark it like stone blocks. It will make a fence nobody need be ashamed of, at a cost of not more than a dollar a rod."

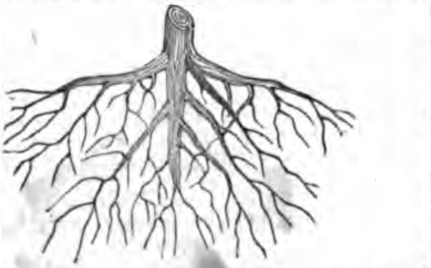
BOTANY.—THE ROOT.

THE ROOT consitutes the basis of the plant: it serves two purposes in the vegetable economy—first to fix the plant mechanically in the soil and retain it in its position—secondly to absorb from the soil those inorganic elements which are necessary for its food. The general direction of the root is downwards; but the roots of various plants grow at all angles from the horizontal to the perpendicular: the principal perpedicular axis is called the *tap root*. The number and extent of the roots must correspond with those of the stalk and leaves of the plants, in order to supply their demand of food from the soil.

Roots do not usually extend to great depths, but keep within the limit of that portion of soil which supplies their proper nutriment. Roots are distinguished from stems and branches by the absence of stomata, buds and pith—and by the presence of absorbing fibres.

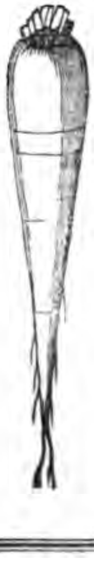
The stock, or main body of the root, sends off the *fibrils*, or minute, slender branches of the root,—the delicate, tender extremities of the fibrils are called *spongioles;* these are the growing points, and the organs which absorb from the soil the earthy part of the food of all plants. If some trees, as the willow or currant, be inverted in the soil, the branches are changed to roots, while the roots put forth leaves in the air, and the plant grows.

Roots are of several different forms, which have received specific names for the sake of convenience.



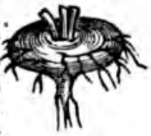
Ramose, or *branching* roots are those which send off many ramifications in various directions, like the branches of a tree: such are the roots of the oak, &c.

FIG. 2.



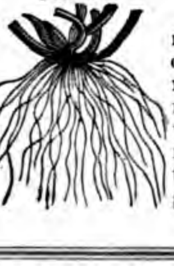
Fusiform, or *spindle shaped* roots, consist of a fleshy stock, tapering downwards to its extremity, sending off fibrils, which are its true roots: such are the radish, carrot and parsnep. Fig. 2.

FIG. 3.



The *napiform* root is a variety of the fusiform, in which the neck or upper part swells out, so that its diameter equals or exceeds its length. The turnip and turnip-radish are examples. Fig. 3.

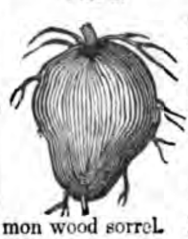
FIG. 4.



Fibrous roots are made up of numerous small thread-like roots, attached directly to the stalk, without any neck or main root: such are the roots of most grasses. Fig. 4.

Fasciculated roots differ from the fibrous in having some of their fibres thickened and fleshy, as in the dahlia and pæony.

FIG. 5.



Tuberous roots consist of fleshy, roundish knobs or tumors, at or near the extremity of the stalk, as in the orchis: "the potato was once classed among tubers,—but as it uniformly bears buds, it is classed among stems." Fig. 5.

Granulated roots consist of many small rounded bulbs connected by fibres, as in the common wood sorrel. Fig. 6.

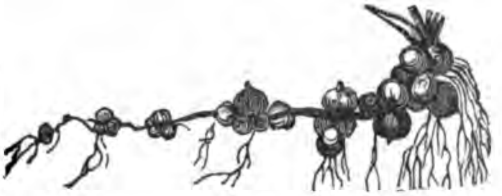


FIG. 6.

Besides these varieties of roots, there are several others which are peculiar; and distinguished by not being necessarily fixed in the soil.

Aerial roots are those which grow from some part of the plant above the surface of the soil in the open air. Some creeping plants, as the ground ivy, send forth these roots from their joints. The screw-pine also send off roots which are several feet in length before they reach the ground. Such roots are often seen in the common maize.

Floating roots belong to plants which float upon the surface of water. The water-starwort is said to float upon the surface until flowering, when it sinks and takes root in the mud till its seeds ripen.

The *epiphytes*, or plants fixed upon the branches of other species, derive their nourishment mostly from the air; such are some species of moss.

Parasites are those plants which grow upon other plants; and some of whose roots are said to penetrate their tissues and subsist upon their juices; while the roots of others are aerial, and derive their food from the air: such are the mistletoe and dodder.

Roots are divided again into three varieties, viz: annual, biennial and perennial, according to their duration.

Annual roots are those which live only one year, and must be raised from the seed, sown every spring,—as beans, peas and cucumbers.

Biennial roots are those which live two years and do not blossom the first season,—but they produce flowers, fruit and seeds the second year, and then die; such are the beet, cabbage and carrot.

Perennial roots live several years,—some of them, as forest trees, live to a very great age: the grasses, dandelion and asparagus are other examples.—*Rodgers' Scientific Agriculture.*

* * *

POMOLOGICAL REFORM.—A. J. DOWNING, Esq., chairman of the General Fruit Committee of the Congress of Fruit Growers, has addressed a circular to the committee, directing their attention to the necessary subjects for investigation. It is an important document, and we shall call attention more particularly to it at a future time.

HINTS FOR APRIL.

Pruning should all have been done last month, but if any has been deferred it should be attended to forthwith. In orchard fruit trees little is necessary beyond thinning out the small branches to admit air and light freely to all parts of the tree, and removing all straggling branches or those that cross each other; spoiling the form and balance of the head. It is too late for grapes, or stone fruits, unless it be small limbs or twigs; if pruning be necessary defer it till summer.

Spade around and give a top-dressing of manure to all fruit trees, if not done last fall. Use well rotted manure; some decayed leaves from the woods, and a portion of ashes and lime mixed with the manure makes a good compost for any trees, particularly for peaches.

Grafting must be done, commencing with cherries and plums, and finishing with pears and apples. The grafts of last season should be looked over and all shoots that have appeared below them cut away, and weak shoots cut back to a good plump eye. *Suckers* that appear around the roots of trees, and all shoots on the trunks of standards should be carefully removed.

Transplanting should be finished as early as possible. Some people cannot think of going into their garden to see what trees should be planted in it, or what care it needs until the ground is dry and clean, the sun warm and bright, and the leaves and blossoms begin to appear—then gardening becomes so charming that it can be no longer resisted — something must be done; and then it is so late that a great many important little things must be deferred. Don't be afraid of a little blustery weather; but get every thing done in season, fair or foul, and when fine weather comes, your trees and plants, your grass lawns, your seeds, &c., will have but to grow.

Roses should have a careful pruning and a liberal dressing of good old manure. The rose cannot have a soil too rich, and in a poor soil, or one half way poor, you cannot expect a fine, first rate bloom. Many people will buy a good rose, and plant it in a miserable worn out border. It grows *perhaps* a very little, and produces a small starved blossom. It has neither the size, color or fragrance that was expected, and then the poor nurserymen are blamed for overpraising it. Well, sometimes they are too lavish of their commendations, but cultivators are much more frequently at fault in their treatment. All roses should have a deep, rich and if possible a somewhat heavy soil. *Climbing Roses* should be cut back a little; that is, remove the small weak ends of the last season's shoots, and they will push more vigorously afterwards. All straggling, superfluous shoots should be cut out entirely.

The Everblooming Roses that may have been protected in the borders should be uncovered, if not done, and properly pruned and dressed. Those wintered in cold frames may be turned out at any moment; cut them back freely to obtain strong growth.

Flowering Shrubs should be pruned, too, if the heads have become dense: this, with a dressing of manure is necessary to luxuriant foliage and a profusion of blossoms.

Herbaceous Perennial Plants, if old and large, will not bloom well. The roots cannot find nourishment, and they will fairly wither away in midsummer. They ought to be divided—(it ought to have been done last fall)—and re-planted in fresh good soil.

Annuals may be sown in well prepared borders towards the end of the month, when the ground is dry and warm. If planted too soon they will rot. If an old hot-bed could be had with a trifling heat, they might be forwarded in it and a month of time be gained.

Lawns, Walks, Hedges, &c., will all require attention at this time.

Those who wish to live well will not forget the Kitchen Garden. No doubt most people have *Peas* now nearly in blossom, and *Lettuce* fit for table. These are things that can be started early in any sheltered corner. A little frost don't harm them. The general crops may now be put in, such as *Potatoes, Beets. Carrots, Onions, Cabbage, Cauliflower, &c.* Beds of *Sea Kale, Asparagus* and *Rhubarb*, three culinary plants that are really indispensable to all good gardens, may be made now, and old beds dressed and enriched.

There are a multitude of other matters to be done that cannot escape the attention of careful persons;—what we have given are, of course, but mere Hints.

The North American Pomological Convention has appointed State Committees, and issued a plan of operations similar to that of the Congress of Fruit Growers. This body will meet with the New York State Agricultural Society at Syracuse, next fall. We apprehend that pomological science will not be greatly benefitted by two such bodies in the same field. Looking only to the general good, we conceive that it would be better for the friends of this matter to unite their labor and efforts and influence in one organization. There cannot be two such bodies without more or less rivalry being engendered; and if rivalry is at all admitted, we cannot reasonably expect good. This view of the subject, we think, will ultimately prevail.

THE BAILEY SWEET APPLE,

BY C. P. BAILEY.

Dear Sir:—I owe you an apology for having so long neglected your inquiry in regard to the apple called the "Bailey Sweet." I have often, in its early history, conversed with the first settlers of this place, in regard to the origin of this apple; but could only ascertain that the orchard, containing some twenty trees of this fruit, was transplanted in 1814 or 15, and came into my possession in 1829, at which time I commenced distributing the scions liberally throughout the country. From this circumstance, it no doubt received its name. I have learned its history, wherever introduced, and can trace it no farther back than this orchard.

The tree is of vigorous growth, bears abundantly; the fruit ripens early, and deep red on the outside—size, large—shape, oblong, tapering handsomely towards its summit. Its flesh tender, juicy, sweet and excellent. A superior table fruit, fine for baking or cooking, and decidedly the most popular apple in this vicinity, and so considered wherever it has been introduced, as far as I can learn, both east and west. With proper care will keep into the month of February.—*Perry, N. Y., February*, 1849.

VARIETY OF APPLES—CHAPIN'S ORCHARD,

There probably has not been an instance of the production of as fine varieties of apples as are now grown and originated on the farm of the late Heman Chapin. The "Early Joe" ripe in August and September; Water Melon, or "Norton's Melon," November to February, and the "Northern Spy" from March to 15th of June—a complete succession of apples, the two first, particularly a desert fruit, and the "Spy" answering for both table and cooking. Western New York can boast of the three, and they cannot be too highly prized. Let every one be advised to cultivate them, and when they succeed, they will thank the writer of this for his advice.—J. H. Watts. *Rochester, N. Y., March*,, 1849.

VALUE AND CULTIVATION OF BARLEY.

BY MYRON ADAMS.

MESSRS. EDITORS:—My attention has been called to the crops of barley raised in this town for which premiums have been awarded by our State and county Agricultural Societies during the last six years. I think the value of the barley crop is not duly appreciated by our farmers, and perhaps a statement of what has been done here may stimulate others to engage in its culture. I have not been able readily to find full statements of all the crops for which premiums have been awarded by our Society, and have therefore taken nine crops which I find reported in the Cultivator. The largest crop, grown by S. B. DUDLEY, was 69 bushels. The least crop of the nine was 48½ bushels—the average 56½ bushels. Three of these crops were grown by Mr. BRADLEY, and the average of the three is 59½ bushels. Mr. DUDLEY also raised three of these crops, and his average is 57½ bushels.

These crops were all grown after corn—the land having been manured for the corn with from 15 to 30 loads of unrotten barn yard manure. The land was but once plowed, thoroughly harrowed, and in some cases rolled and plastered. The seed was generally sown dry, but for some of the crops it was soaked in the strong black juice of the barn yard, and rolled in lime. One important feature in these crops is, they were heavily seeded. In most of them 3 bushels of barley per acre were sown. The average expense per acre of growing these crops I think will not exceed $10, including rent of land—and the value of the crop per bushel will average 50 cents. The amount of the average of these nine crops is 56½ bushels, at 50 cents per bushel, would be $28 25 deduct expense of cultivation—$10 would leave a profit of $14 per acre.

Another thing in favor of this crop is that the land is only occupied by it for about three months, and is then in the very best state for a crop of winter wheat. I apprehend the reason why this crop is so unpopular with farmers is that when they raise barley they sow it upon poor land, in an exhausted state, and quite too many acres of it. It ripens when they are engaged in their wheat harvest, is suffered to stand until it is dead ripe, and is then very disagreeable indeed to handle. Our best growers of barley do not sow over two or three acres, sow it easily and harvest it as soon as the stalk begins to whiten below the head. It is then pleasant to handle, and the straw is better for fodder than the straw of any other grain. With good culture it is a very sure crop. It is sometimes smutty but never when the seed is limed. There is a great temptation to sell the crop for distilling when the price rises to 60 and 70 cents a bushel, as it has the two last seasons—but I think farmers will always find it a profitable grain for consumption. Grind it or soak it and feed it to hogs, horses, working cattle, poultry—any thing but milch cows and breeding sows. *East Bloomfield, N. Y.*, 1849.

SEEDING WITH CLOVER—AGAIN.

BY F. W. LAY.

MESSRS. EDITORS:—Your reviewer of this month thinks I labor under a hallucination, in asserting that clover will not grow when sown in the spring on the wheat crop, with once plowing a sward; and says "that if cast early enough, before the frosts of spring have ceased to elevate and crumble the soil, so as to cover the seed, it never fails if the seed is good." Whether this is his mere *ipse dixit*, or the result of any experiments or observations, he does not inform us; but he probably reasons from theory instead of experience;* and as this may be important for some to know in order not to be disappointed in crops and rotations, I will state my observations on the subject.

The first time I observed it was some six years ago in making an alteration in the lots. I brought about an acre of clover sod in with my summer-fallows, which I turned under and sowed with wheat—the soil a deep rich sand. The next spring I seeded the whole with clover; have forgotten the time of seeding. The part summer-fallowed grew finely, and was very thick, while directly side of it, where the clover sod was, scarcely a plant was to be seen.

The next year I had a lot of nine acres, about three of which was planted with corn and the remainder in wheat; and as I wished to get it all in one crop, I plowed it all in the fall and sowed it with wheat. The next spring I sowed on clover seed, as sown in the spring as I could after the snow was gone. The soil was a gravelly loam. The three acres where the corn was, the clover grew very thick and rank, while directly along side, for the whole length of the lot, which was sixty-three rods, not a plant was to be seen. I afterwards turned over three acres of wheat stubble in the spring and sowed with oats and clover, dragging in the clover seed with the oats. I watched this carefully; the plants came up but soon began to wither, and, by midsummer, were all gone, as the whole lot was alike. I am not certain but the dry weather of summer may have killed this, but the two first cases to me were fair and satisfactory. I have also noticed it in several cases on my neighbors' grounds, and have never known a different result. How it might be in some soils and circumstances, I know not. Why it should fail with once plowing, any more than several, I cannot tell. *Greece, N. Y., February*, 1849.

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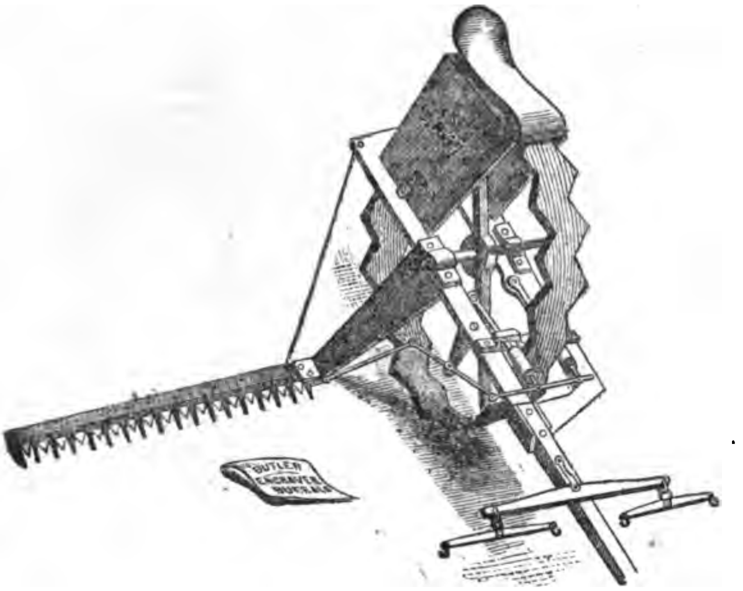
* Our reviewer is one of the most experienced practical farmers in Monroe county.—ED.

IMPROVEMENT IN NEW ENGLAND.—The subject of farming, or rather of improvement in the mode of farming, is beginning to attract a little more notice than it formerly did; and amidst much prejudice and ignorance, some of our best farmers are thinking and talking about how they shall turn their labor to better account. They begin to see the necessity of connecting science with agriculture. As an evidence of an increased interest on the subject, I will mention the fact, that a few weeks ago, a "farmers' club" was organised in this place, for the purpose of "Mutual improvement in the art of farming;" and the subject of "Manures," was proposed for discussion at our next meeting. *Warren, Ct., March*, 1849. H.

PEA BUGS.—*Friend Farmer*:—Not having bugs in my seed peas for several years, I claim, in behalf of all concerned, to tell my story. My way of doing it is, to sow early peas, and as soon as they are ripe, sow them for a second crop the same year. No bugs will be found in the last crop. Whether the same time of sowing of last year's seed or of keeping the same to the second year I know not, not having tried it. My first crop I have found usually stung badly; but by sowing immediately, the insect has not time to mature, and leaves the second crop untouched.

Hinmanville, March, 1849. CEPHUS.



KETCHUM'S MOWING MACHINE—PATENTED JULY, 1847.

KETCHUM'S MOWING MACHINE.

The information in our possession relative to this machine induces us to recommend it to the attention of farmers. The manufacturer states that—"This machine is simple in its construction, and made mostly of iron, and not liable to get out of order. It is capable of cutting from 16 to 20 acres a day; and the grass when cut by it falls back to the rack bar, and lays smooth and even on the ground, in a proper shape to dry—thereby saving the time and expense of spreading it. In meadows that are considerably broken and uneven, as well as those which are smooth and even, it has been found to operate with perfect success, and to all appearance the cutting is the same."

This machine received the first premium of the N. Y. State Ag. Society, at the Annual Fair at Saratoga, in 1847. It was exhibited at the State Fair in 1848, and received a Certificate as the highest evidence of merit. We annex the report of the Committee:

"The undersigned, a Committee on Mowing Machines, *Report.*—That, only one Machine, and that patented to Wm. F. Ketchum of Buffalo, has been submitted to their inspection. They have examined this with care, and have had a full opportunity of witnessing its operation, and in their opinion, the Machine is simple in construction, and performs its work in a very satisfactory and complete manner, accomplishing a great saving of manual labor.

Although the Machine works best in meadows with smooth and even surface, yet, we see no reason why it will not do well on surfaces moderately broken and uneven, not being exposed as we see, to any greater embarrassment from uneven surfaces than the Plow is. As regards its liability to be broken or disarranged in its work, we discover nothing peculiar, and as to this, it can only be determined by longer continued experiments than we have had opportunity to witness.

On the whole, we recommend the Machine to the favorable regards of the Society, and through the Society to the attention of the Agricultural public. All of which is respectfully submitted.

Albert H. Tracy,
Thomas C. Love,
W. R. Coppock."

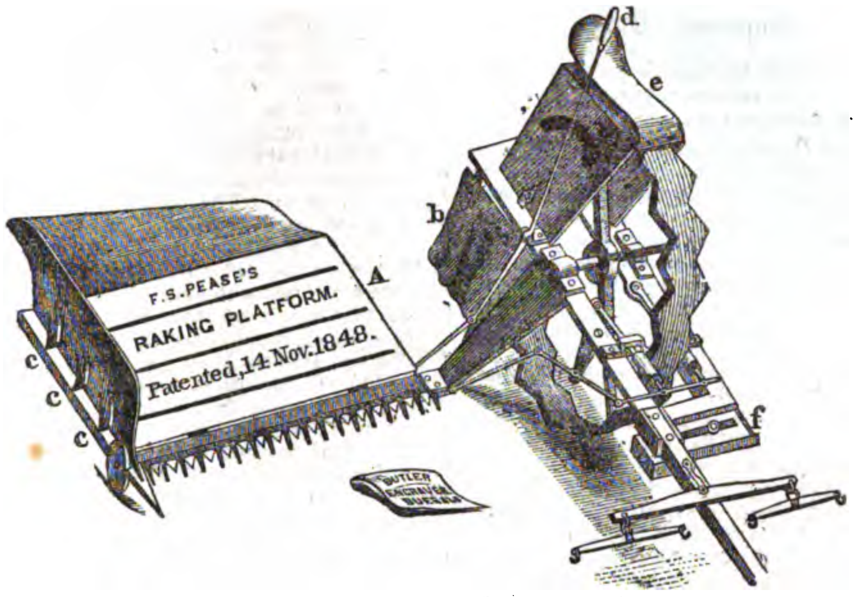
Buffalo, Sept. 7, 1848.

PEASE'S RAKING PLATFORM.

If this improvement, attached to the machine, above represented, will work as well in a wheat field, as is indicated by the operation of a model we have examined, it will prove a most valuable invention. It is thus described by Mr. Pease:

"The Raking Platform (A) is attached to the back of the rack bar, it being of the length and width required to receive the grain, and from two to three inches in thickness, consequently not interfering with the stubble over which it passes. When a sufficient quantity of grain has been cut and falls on the platform, it is easily raked therefrom by the person that drives, who sits upon a spring seat (e) and by pulling the lever (d) a short distance, (it being connected with the raking apparatus which is placed in the platform,) it operates immediately on the teeth (c c c,) which are forced across the platform, raking the grain from it, and landing it on the ground between the platform and the apron (b.) By a reverse motion of the lever the teeth fold up and travel back under the platform, and rise behind the turn off, by which they are protected; consequently the teeth in their return, do not interfere with the grain which is constantly falling on and across the platform. The time required to rake the bundle is no more than is necessary for the person who drives to move the lever a short distance. By this simple machine it will be seen that one man is required to drive the team and rake the grain; having at his control the raking apparatus enables him to gather a bundle as large as he likes, and rake it when and where he pleases; and he can make allowance for the thickness and thinness of the grain and rake it accordingly. It is raked in such a manner, that the bundle is landed upon the ground smooth and even, and out of the way of the machine when it comes round for the next swarth, leaving the grain in bundle, and in good condition to bind at leisure.

The Raking Platform is easily attached to any



grass or grain cutting machine. As represented above it is attached to Ketchum's Mowing Machine, which is made to answer a double purpose. A farmer can use it for mowing; and by attaching the platform it is made a reaping machine, capable of raking its own grain, and easily operated by one man. The great amount of time and expense saved by this invention will be acknowledged when it is known that in all other reaping machines it requires a number of men to operate them, or to bind the grain and get it out of the way, for the next swarth. By this machine one man can drive his team and rake the grain into a bundle and leave it smooth and even on the ground, and out of the way of the machine when it comes round for the next swarth. The attachment of this "*rake off*" to Ketchum's Mower, or any similar machine, enables the farmer to cut his hay, and cut and rake his grain with the same machine."

Further information relative to Ketchum's Mowing Machine, and Pease's Raking Platform, can be obtained of Mr. **Samuel W. Hawes**, of Buffalo, N. Y., who is owner of the patents. See his advertisement in February number of the Farmer, and also in the advertising department of this number.

NOTES FOR THE MONTH.

H. Y., in the last Farmer, demurs to my use of the term *alluvial soil* as incorrect when applied to our formations. He says *diluvial* is the word. I wrote *alluvial*, because every farmer knows the meaning as rich bottom soil; and all the subsoil of Seneca County is of that character. Diluvial, I take it, is often mere barren drift or detritus. The hills of Indiana have been called alluvial by professed geologists. But as I am far from accusing H. Y. of hypercriticism, I hope he will excuse me for demurring to the expletive he puts in a line of Shakespeare.

The Sovereign People.—It must be admitted by all the world that to the people of these United States alone belongs the title of *Sovereign People.* In republican France all is taxed to support a colossal army to protect the government, not against the foreign foe, but against the fickle, factious people, who made the government itself. It takes the enormous amount of $328,000,000 annually to support the republican government of France; whereas the Secretary of the Treasury of the United States estimates our expenditures for the coming year at a little over $33,000,000. The taxation of the United States is only about one dollar and fifty cents per head, and nearly all from a duty on imports. In France it is nearly ten dollars per head, and the revenue is raised chiefly by direct taxation. What would our farmers say to such taxation? 'Tis true that the products of the soil might rise in price, but what would become of those farmers who have little or no surplus to sell? S. W.

CARROTS.

Cyrus T. Deak has raised in the town of Mt. Morris, Liv. Co., the past season, on seventy-three square rods of land, three hundred and seventy bushels of carrots, about one half of the yellow kind, the remainder of the white field variety. The land on which they were raised, is a black muck, with clay subsoil. The expense of raising the crop was as follows:

2 days work of hand and team plowing and harrowing,	$3.00
4 days planting by hand,	4.00
7 days hoeing, at $1 per day,	7.00
Expense of harvesting at 3 cents per bushel,	10.00
	$24.50
Crop worth 25 cents per bushel,	90.00
Over and above expenses	$65.50

Yours, &c., **Wm. W. Deak.**

Remarks.—We are highly gratified with the above result, as it is a subject,—the raising of roots,—that we have taken a great interest in, and the benefits of which we wish to enforce upon our readers. Mr. D. has stated his price for labor, and perhaps the value of his crop, too high—but with that deduction, it is an important result.—**Ed.**

Improved Stock.

SHORT HORN CATTLE.—MR. VAIL'S STOCK.

BY SANFORD P. CHAPMAN.

[Reply to M. Hanford, Jr., and A. G. P., page 43 of present volume.]

As friend H. calls for some testimony in regard to Mr. VAIL's stock, and also asks a few questions, we think we cannot do better than present him a few facts, most of which are already familiar to the greater part of the agricultural public.

At the show of the American Institute, in 1843, Mr. Vail's *Meteor*, then only two years old, was awarded the highest premium for the best bull of any age, competition open to the United States. At the State Show, held at Poughkeepsie, in 1844, *Meteor* was again awarded the first premium for the best Durham bull, and also the first premium for the best bull of any age or breed. At the State Show at Auburn, in 1846, Mr. Vail's *Lady Barrington III*, [for portrait and pedigree of this cow see vol. VIII, p. 212 of this journal.—ED.] received the first premium. At Saratoga in '47, Mr. F.'s *Hilpa* was also successful. In '45 Mr. Z. B. WAKEMAN, of Herkimer Co., purchased two calves of Mr. Vail, a bull and heifer. These obtained the first premiums in their class at Utica in '45, at Auburn in '46, at Saratoga in '47, and the bull at Buffalo in '48.

In 1844, (see the Society's Transactions for '44, pages 214 and 215,) the Society's first premium was awarded to Mr. Vail, for the largest quantity of butter made from 6 cows,* (*all thorough bred Durhams,*) in 30 days, fed on *grass pasture alone*, and that not the best. It will be seen by that statement, that the six cows produced 265 lbs. and 10 oz. of butter in 30 days. One cow, *(Old Willey,)* milk and cream kept separate, produced 52 lbs. and 9 oz. The quantity of milk, accurately weighed and measured from the six cows in one day, was 265 lbs. 10 oz., measuring 134 quarts; averaging for each cow in one day 22½ quarts.

In the American Agriculturist for 1848, page 294, Mr. BELL, of Morrisiana, gives a challenge for milking stock, (his stock are Durhams,) which is still open. If friend Hanford, or some of his friends who have the "common stock," wish to test their value as *milkers* against the Durhams, this will afford them a good opportunity. We have not the pleasure of a personal acquaintance with Mr. BELL, nor do we know much about his herd; but judging from the animals we have seen, and knowing that they possess the blood of the late Earl Spencer's celebrated herd, we have no fears as to the result.

There are many recorded facts showing the good *milking* qualities of the short horns, a few of which we will briefly mention. Mr. CALVERT, near Brampton, in England, had a short horn cow, which produced 373 lbs. of butter in 32 weeks. In one week she produced 17 lbs. on grass pasture. The imported cow *Dime*, owned by Mr. ALLEN, gave upwards of 30 quarts of milk per day, on grass pasture. Mr. WHITTAKER of England had one cow, *Yellow Rose*, which gave when 3 years old, 36 quarts (wine measure) per day, and when 4 years old 38 quarts. The celebrated herd of Col. JAQUES of Mass., which from the quantity and quality of their milk he has named "Cream-pots," are high grade Durhams; descended on the side of their sire from the imported bull *Cœlebs*. While Col. J. owned this bull he received no less than three thousand two hundred and thirty dollars for his services. (A better investment we should think than money in the state stocks.) In a letter to the Editor of the Cultivator, in 1845, Col. J. says: "The different strains of *Cœleb's* blood are now daily talked of, and are eagerly sought after, * * * *particularly* by our *milk-men*." A little farther on the editor remarks—"Particular trials have been made with some individuals of this stock, and they have given at the rate of from *seventeen* to *twenty-one* pounds of butter per week." Truly a *strain* of Durham blood does not *injure* the milking qualities of our native stock. Mr. ALLEN, Editor of the American Agriculturist, for 1848, page 54, says: "For a combination of all these qualities," (viz: good working cattle, good beeves and good milkers,) "and especially as beeves and milkers, we do not think those Durhams which are *properly bred can be excelled*." In the article referred to Mr. ALLEN tells a story of a Durham bull, which we wish friend Hanford to read. We think, however, it will be rather hard for his *quality* feeding to digest.

"It is said," (by whom ? any one that ever bred or owned a pure bred Durham ?) "they are great consumers. In this principle it will be observed is involved the *quality* of feeding." We should like to see the *facts* with *figures* to prove this. We deny the charge; and without the *testimony* we think we have as good a right to *demur* as friend Hanford.

The Editor of the Cultivator in 1845, page 44, speaking of Mr. PRENTICE's Durhams says: "This herd of cattle cannot be large consumers; after making due allowances for the fertility and production of the land, the quantity of stock kept is certainly remarkable. * * * *Appolenia* is one of the best *dairy* cows we have ever seen."

In 1842 in the New Genesee Farmer, Mr. COLMAN, then Editor, says—"If any man, however, chooses to see this stock in perfection, let him go to the farm of E. P. PRENTICE, of Albany; and if he has *any* prejudices of *any kind* against the stock, and is not prepared to yield *every one* of them, I can only say he is differently constituted from what I am."

We last fall purchased the cow *Charlotte* of Mr. Vail, [for portrait of this cow see plate in February number of Cultivator, for 1848—ED.] formerly owned by Mr. Prentice. We have kept this cow through the winter until February, entirely upon *barley straw*; and yet such is her thrift and the ease with which she is kept, that strangers frequently inquire if we are fattening her. A few years since we kept a Durham bull *Nero*, from Mr. VAN RENNSELAER's stock, owned by Mr. WARD of Wampsville. During part of the winter we were under the necessity of feeding this bull wheat straw, as he was likely to become too fleshy upon barley straw for spring's service. We don't however suppose that all Durham's will keep with the ease of the two last mentioned animals, but we do think *as a herd they are small consumers*. As to the cow referred to in our previous article we would say, that she is expected to calve in June next, and should we find it convenient, as we presume we shall, it will afford us much pleasure to furnish friend Hanford, and the readers of the Farmer the information he requests.

We would not advise A. G. P., if he is about commencing the dairy business, and has $6,000, to expend it all in Durham cows at $150 each; but we would advise him if he keeps much stock or intends to, to purchase a first rate Durham bull, although it might cost $300. Make up the rest of your herd with the best common cows you can purchase, and by a judicious use of this bull with such change as occasion may require, we doubt not in a few years you will find, (by carefully raising your heifer calves and disposing of your older cows,) the value of your herd greatly increased, and the sum expended for the bull a profitable investment. Friend A. G. P. erred a little in his calculations in not reckoning the value of the calves into his account. A good Durham calf is worth from $50 to $300 when quite young. If he had counted them worth only the smaller sum, it would have made a little difference in his figures. We can hardly think that A. G. P. would suppose any one so foolish as to pay $150 for a Durham cow, and then "*deacon*" her calves! This would be folly in the extreme. At the time of Mr. Prentice's sale in '45, one bull calf, *Tecumseh*, out of *Charlotte*, and another, *Duke*, out of *Matilda*, sold for $200 each. Mr. Vail has sold all his bull calves from his *Lady Barrington, III*, two in number, for $300 each when quite young. Col. Jaques, before referred to, has sold some of his full bloods, when 8 months old, for $300.

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* The keeping of these cows during the winter previous to the trial, was hay fed at night, and during the day corn stalks and straw in the barn yard. Had the pasture been *first rate* during the time of trial, we presume the cows would have yielded nearly two pounds of butter more per week each.

There has been no time in England since the sale of the COLLINGS, that the short horns have been in greater demand, or brought better prices than at the present. Mr. BATES, (the breeder of Mr. Vail's Duke of Wellington and Lady Barrington III,) last year let a bull to serve a small herd of cows for seventeen weeks, for *over one thousand dollars*. The short horns belonging to Earl Spencer's estate were sold last year. Eighty-eight animals brought the round sum of $28,717. One bull sold for $2,100. We mention these facts merely as a proof, that, in the words of Mr. ALLEN, "where they have been bred longest they are liked best," and to show the value that is there placed upon this noble breed of cattle. *Clockville, Mad. Co., N. Y., Feb.*, 1849.

BREEDING HORSES.

THE "*Vermont Agriculturist*" for January, 1849, contains an article with the above head. As that paper has been discontinued, I am under the necessity of asking you to insert in the Farmer the following reply to the article alluded to.

The writer in the *Agriculturist* says—"The horses whose stock in this State have proved superior, were without an exception, *thorough-bred horses*. * * * The four horses that have been most celebrated in the State, are the 'Morgan,' the 'Cock of the Rock,' the 'Magnum Bonum,' and the 'Old Telescope.' The Morgan stock has, as a general thing, been most noted. The pedigree of the original Morgan goes directly back through 'True Briton' and imported 'Othello,' to 'Musgrove's Arabian' and 'Childers'."

In relation to these statements, the first question that arises is, What constitutes a thorough-bred horse? Perhaps it will be replied, the English race horse. And this answer may for the present be received as correct, without stopping to inquire into the origin of the race-horse.

Is it then true, that the four horses named were thorough-bred? Take them in order: First, the Morgan, whose stock the writer of the article in the *Agriculturist* says "has, as a general thing, been most noted," (a conclusion, by the by, which I think will not be disputed.) Was he a thorough-bred horse? His sire is admitted to have been a horse called True Briton or Beautiful Bay, obtained (stolen it is said) from Gen. JAMES DE LANCY, of New York. There have been several horses by the name of True Briton. What was the blood of the one mentioned? The late JOHN MORGAN, of Lima, N. Y., stated, (see Albany Cultivator, vol. IX, p. 110,) that he was got by the imported horse Traveller, (Morton's Traveller.) Mr. M. kept him several years, during which time he begot the old or original Morgan horse. But the writer in the Agriculturist says the sire of the original Morgan was imported Othello! Where is the evidence of it? The true Briton, by Othello was on the turf and won matches in 1765–6. (Am. Turf Register, vol. VI, p. 5.) The old Morgan was foaled in 1793. Is it probable he was got by a horse so old as to have run races *twenty-eight years before?*

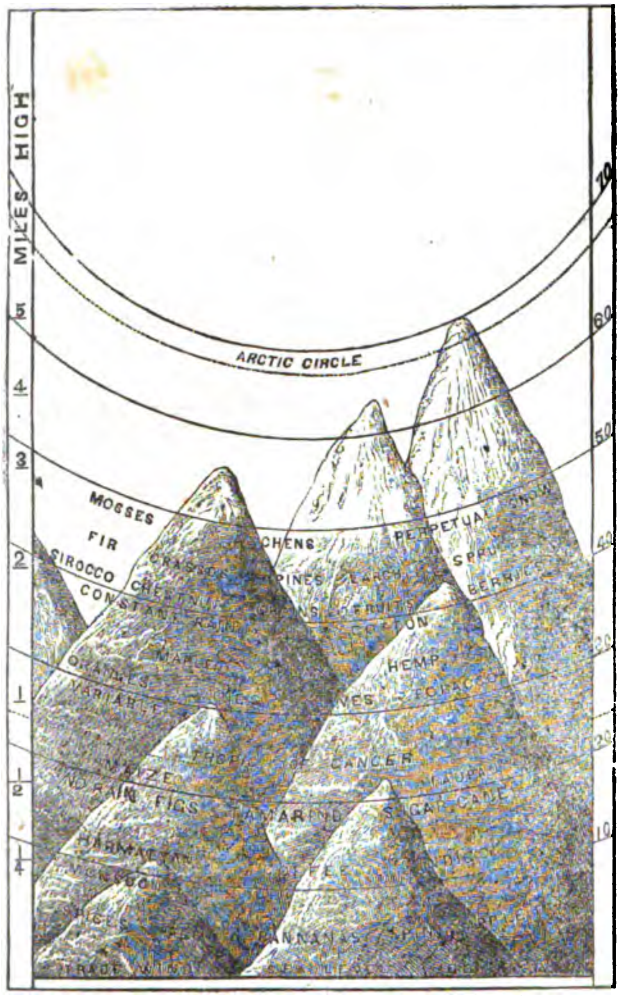
But admit that the sire of the old Morgan horse was a full blood race-horse. What was his dam? JOHN MORGAN, (before named,) states that she was got by a horse called "Diamond;" he by "the Church horse;" and he by the imported "Wild-air." Nothing is said by MORGAN of the blood of the *grand-dam* of the Morgan horse, or the blood of the dam of "the Church horse." The inference is, therefore, that they were of the common or *cold* blood. The dam of "Diamond" is said to have been an "imported" mare. (See Albany Cultivator for 1846, p. 19.) "Wild-air" was a well known English race-horse. Now if he begot "the Church horse" on a common mare, the latter horse would of course have been half blood; if "the Church horse" begot "Diamond" on a full blood mare, he would have been three-fourths blood; and the latter horse having begotten the dam of the old Morgan on a common mare, she would have been *three-eighths* blood. Hence, if True Briton was a full blood or thorough-bred horse, the old Morgan, inheriting half or *eight-sixteenths* of his blood, and *three-sixteenths* other racing blood, (from his dam,) would have been *eleven-sixteenths* blood. *Does this make a thorough-bred horse?*

The writer in the Agriculturist next gives what he calls the pedigree of "Cock of the Rock."—He says he was got by Duroc; his dam by imported Messenger. But is this such a pedigree as would satisfy a breeder of blood horses? Admit that Duroc and Messenger were thorough-bred horses—(though it is well known to turf-men that there is a *flaw* in the pedigree of the former)—is the case then made out, that this "Cock of the Rock" was thorough-bred? On the side of his sire his pedigree may be accepted. His dam was half Messenger; but what was his *grand-dam?* According to this "pedigree," "Cock of the Rock" was half Duroc and a quarter Messenger—that's all. *Does this make a thorough-bred horse?*

He then goes on with "Magnum Bonum," who he says was "sired" by imported Magnum Bonum; but his dam is not even mentioned; and according to this statement he was only half-blood! This is the third of his "thorough-bred" horses.

As to "Telescope," the fourth horse mentioned, it is merely stated that his pedigree can be "traced [in the same way the others are traced?] back to the highest strains of English blood."

Comment on such "pedigrees" is unnecessary. * †



GEOGRAPHICAL DISTRIBUTION OF PLANTS.

BY L. WETHERELL.

The above illustration is from "Rodgers's Scientific Agriculture;" and was designed by the author to aid the mind in acquiring a knowledge of the distribution of plants with regard to height; to show the latitude of prevailing winds, and the altitude of no rain and of almost constant rain. The figures on the right hand side of the cut, denote the degrees of north latitude; those on the left denote the height of mountains, graduated in miles. There is also an attempt to show the lines which separate between the elevation of the different species of plants; "and the line of perpetual snow."

It is a well established fact that a greater degree of cold prevails in the upper regions of the atmosphere than at low levels. This is manifest from the fact, that, the mountains of the equatorial region at the height of 16,000 feet are covered with perpetual snow; the height of the snow line diminishes in passing from the equator to the poles of the earth, until it rests on the sea level at 70 or 80 degrees north latitude; this is true of the summer temperature: the snow line is much further south when the sun is in the tropic of Capricorn. According to Prof. Leslie, the mercury in the thermometer falls one degree for every 300 feet of ascent. Hence an elevation of 15,000 feet near the equator produces the same changes in the vegetable kingdom as the distance of 5,000 miles north of the equator on the level of the sea. An elevation of 7,000 feet in the tropics gives a temperature the same as that of France, which is 49 degrees north latitude.

Humboldt, in his travels in S. America, has given a sketch of the vegetation of the Andes, commencing in the torrid zone on the level of the ocean, and ascending to the region of "eternal snow." A condensed view of this sketch with the aid of the cut, will enable the reader to gain a very correct idea of the distribution of plants,—remembering always that altitude from the level of the sea produces the same effect upon climate and plants as travelling north or south of the equator.

1. *The Tropical Zone.* This is called the region of palms, and extends from the level of the sea to 3,500 feet. Here grow in perfection the splendid palm family, the sugar-cane, the coffee plant, the tea plant, the orange, the lemon, the fig, the citron, the pine-apple and the banana; also the region of the nutmeg, cinnamon, clove; and of the various fragrant and medicinal gums. Here are found, also, various and valuable kinds of wood, as the mahogany, the iron-wood, the teak-tree, and the bread-fruit-tree; the various kinds of dye-wood, as logwood, camwood, &c. Wheat does not flourish at this altitude: maize, rice and millet do—; these with the bread-fruit, plantain, cassava, manioc roots, taro-root and the yam, furnish food for more than one-third of the human race.

2. *The Temperate Zone.* This region produces in great abundance the grains from which man's bread is made. Here the wine-grape is cultivated in the greatest perfection; also the apple, pear, plum, peach, cherry, apricot, &c. Some of them flourish better in the northern and others in the southern part of this region, or what corresponds thereto, the less or greater altitude.

3. *Arctic Zone.* In passing from the temperate to the arctic zone, the limit of the vegetable world is soon found: very few plants are seen above the elevation of fourteen thousand feet. Lichens are the first that appear on the outside of the vegetable world, whether altitude or latitude be regarded. More than 2,400 species are known. As you approach the limits of the temperate zone, shrubs and herbaceous plants appear—then the evergreens, mingled with the birch and willow. Wheat scarcely comes to maturity—some of the more common garden vegetables are produced here at an altitude corresponding to the temperature of between 60 and 70 degrees north latitude.

The dwarf birch and willow are the trees nearest the snow region: the former seldom exceeds two feet in height, and the latter is still smaller. The reindeer moss grows beyond this limit, proceeding north. As you approach the equator from the region of the dwarf birch, the common birch, the mountain ash, and the Scotch fir, two or three species of the willow, a species of the alder, the bird-cherry, the aspar, the goose-berry and the rasp-berry; and as we go on south we arrive at the northern limit of the ash, the oak and the beech. The northern limit of the oak on the Atlantic coast of Norway is 63 degrees north latitude. On the eastern part of Europe on the borders of Asia it is not found north of 57½°: a fact showing the difference of climate between eastern and western Europe. On the coast of Norway the spruce fir is not found north of 67°; the Scotch fir extends to 70° and the birch to 71°.

The birch unfolds its leaf when the temperature any time during the month rises to 52 degrees. It has been found that barley may be produced where the mean temperature during 90 successive days rises to 48 degrees. It has ripened in Norway under the 70th degree of latitude. In European Russia wheat scarcely ripens at 60°; and the limit of it in Kamskatka, the eastern part of Asia, is 51°; and on the eastern coast of America not beyond 52°. Wheat demands a warmer climate than oats or barley. The apple does net ripen north of 62° in northern Europe, nor north of 57° in eastern.

Humboldt estimates that the cultivation of the vine succeeds only in those climates where the annual mean temperature is between 50 and 68 degrees. The mean temperature may be as low as 48°, provided the summer heat rises to 68. In the old world these conditions are found true as far north as lat. 60°; and in the new not beyond 40°, and ceases in both within 30° of the equator. Thus, as the reader will observe, the region for vineyards is twice as broad in the old world as in the new.

The orange and lemon require an annual mean temperature of 62 degrees.

I have endeavored in this communication to give the reader a sketchy, outline view of the distribution of plants. I am indebted to "Rhind's History of the Vegetable Kingdom" for some of the facts here given.

I propose to present in a future number of the Farmer some considerations on the subject of climatology, which is intimately connected with the present. I shall then have occasion to refer the reader to the cut inserted in the present article for further illustration. *Rochester, N. Y., March,* 1849.

TILE FOR UNDER-DRAINS.—INQUIRY.

Messrs. Editors:—For several years past I have read much in the Genesee Farmer and Albany Cultivator, urging the importance of thoroughly draining all wet lands; and each of them for March has an excellent article on under-draining, from practical farmers, showing its importance, and how soon a return is obtained for the outlay. Many farms are destitute of suitable materials to build drains with, and tile are needed.

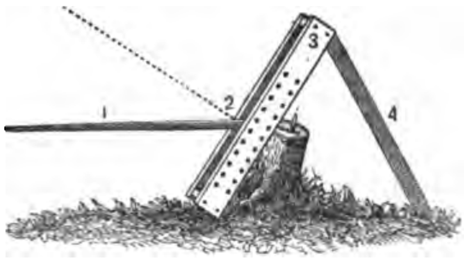
The object of this article is to arrive at the best pattern for tile. I intend to commence the manufacture of tile, this spring, of the following pattern:—The tile over a half circle, three inches in the clear, about fourteen inches long; and flats, the same length of the tile, wide enough to lay the tile on: when laid to brake joints like brick work.

If any of your readers can describe a better pattern for tile, will they please give a description in the Farmer? Alvin Wilcox.—*West Bloomfield, N. Y.*

For price, &c., of Mr. W.'s tile, see advertisement in this paper.—Ed.

A CHEAP STUMP MACHINE.

Messrs. Editors:—You have so many times called upon the readers of the Farmer to become contributors to its pages that I have determined to make the attempt, and herewith send you a description and rude sketch of a Stump Machine, with which last fall I cleared fifteen acres from stumps.



There may be many of your readers living, like myself, on farms not very heavily timbered originally, and which have been cleared long enough for the roots of the stumps to become considerably decayed, to whom it would be some object to obtain a small, cheap and simple stump machine, which would answer their purpose as well as one more costly. In the sketch 1 is a round pole 10 feet long, 4 inches in diameter at the largest end, which is well banded. Into this is inserted a bar of iron 2 by 2½ inches, drawn to half that size at the end inserted into the pole, and 2 feet long. Near the end of this, two notches are cut, a little over 4½ inches apart. In the middle between these, a hole is punched and a link 6 inches long inserted, as seen in Fig. 2, which represents the bar, large hook to hitch under a root of the stump, a link inserted in each, and a connecting hook. The links are made of round ¾ inch Swede's iron, the connecting hook of 1⅛ do.; the large hook of a bar of old sable iron 18 inches long, bent round edgwise. 3 is a frame consisting of two oak planks 3 inches thick, 8 wide, and 7 feet long, pinned together at the ends through a piece of 4 inch scantling, between the planks. There are two rows, 4½ inches apart, of 1¼ inch holes through these planks; the holes being 3½ inches apart in the rows, from center to center. The holes in the right hand row are one inch lower than the opposite ones in the left. Through these holes two iron bolts, as large as the holes, are made to pass for the bar or lever to rest upon.

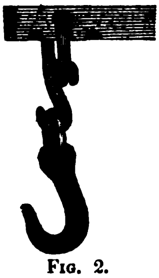


Fig. 2.

To use this machine, it is set up as seen in the figure; 4 being a board for a brace, the lever placed between the planks, the notches resting on the two bolts, and the hook hitched under a root. Now elevate the end of the lever, (which needs a short pole attached by a ring to the end of a long one,) withdraw the left hand bolt and raise it one hole higher; now depress the end of the lever and raise the right hand bolt; and so on as high as you wish. The cost of the machine was $7—iron $4, making $3. Any blacksmith and carpenter can construct one. With a team and sled or stone boat to draw the machine about, I have seen two hands, on a lot that had been cleared fourteen years, pull in a day from sixty to a hundred stumps, mostly from ten to eighteen inches in diameter. *Ontario Co.,* 1849. T. W.

LUNAR INFLUENCE—THE TIDES, &c.

BY PROF. C. DEWEY.

That attraction holds bodies together, draws bodies towards each other, directs the course of the earth around the sun, influences the motions of the moon and planets and produces the tides, was maintained by wise men before the Christian Era. It has been the glory of modern philosophy to ascertain the *amount* of the attractive power, its *direction*, its *varying action*, and in that way to come at the *solution of phenomena* before inexplicable.

The force of gravitation takes place between the parts of matter comprising the earth, moon, &c. It operates downwards upon the matter around, and sideways upon matter contiguous to a mountain, between two balls of lead, between a pendulum and any large mass of matter. All this is proved by experiment. A pendulum is proved to be drawn sideways towards a mountain.

What is attraction? The answer—and hence the definition of attraction—is, these *effects* must have a *cause*, and attraction is the name given to the *cause* of these *effects*. It is of no consequence what the *nature* of the cause is; the operation is the same as if attraction took place between the bodies, and hence the *power* or *cause*, be it what it may, is named attraction.

You strike a ball and it is set in motion by the blow. You call it *impulse*, or the *momentum* of the *striking* body which moves the ball, and thus you call the *cause*, be it resistance, or repulsion, or momentum acting on the matter, or mass upon mass directly, *impulse*. So, attraction is the name of the cause.

The force of gravitation at the earth's surface in our latitude is sufficient to move a body a little more than sixteen feet in the first second of time, if the body could fall without any resistance or counteracting action. The *amount* of the force is thus determined.

The *law* of the force is ascertained; and the force diminishes as the square of the distance increases. Hence, the moon, at sixty semidiameters of the earth from the earth's center is attracted but one-thirty-six-hundreth as much as matter is at the surface of the earth. This is actually the distance she falls towards the earth at a mean rate, in order to revolve round the earth.

The *force varies* too as the *quantities* of matter, that is, each particle attracts each particle in the sphere of its influence. Hence the attraction of the earth upon the moon is equal to the moon's attraction of the earth. The earth has eighty times the matter to attract the moon, and the moon has eighty times her own matter to be attracted by her in the earth. Their attractions must be equal.

If any one is disposed to say there *is no such thing as attraction;* very well, let it be so. Still the fact is before the eyes of all men, that the earth and moon revolve around a common center in a little more than twenty-seven days, or a little less than those twenty-seven and one-third days, and thus fall towards each other. There must be some *cause or power* which does this, and makes them so fall and revolve; that *cause* is called *attraction*, or in this case, *gravitation*. Again—oxygen and iron unite and form *rust of iron*, and lead and oxygen combine and form *red lead*. *Some power* unites and holds together these substances, and that power is called *attraction;* and because a new compound has been produced, t power is called *chemical* attraction or *affinity*.

We as easily conceive of attraction opera a distance as near or in contact: for *how* it it, we know not in either case. A magnet h iron in contact with it, or attracts it at some tance, but we know not the *how* in either res But, the *fact* is certain, and some cause or po acts in this case, which is called *magnetic attracti* Objection to the *name* does not alter or anni the *thing*.

The *tides* are one result of this power, ca *gravitation*, or an attraction which makes ma gravitate towards matter. Both sun and moon operate on the earth, and as their power varies different parts of the earth, matter in a fluid and capable of being easily moved will be affe by this power. The earth too is in different po tions in respect to both the sun and moon, and b are in varying situations in respect to the equat the earth. Sometimes power of the sun acts w that of the moon, sometimes with direct oppo to it; sometimes the power of the sun and moon obliquely with or against each other, and with degrees of obliquity. The moon too, being so nearer than the sun, exerts a greater power in mo the waters or in producing the tides. Her pow this respect is about two and a half times gr than the sun's at a mean rate. Hence the m must have the controlling influence on the tides the power of the sun will be employed in modi the effects produced by the moon as the tid respected.

This is exactly what takes place: and th are computed from the relative positions of the earth and moon, varying distances and obliqui forces. If we call this a *mere coincidence*, we ourselves with the name. I put my finger in fire, and it is blistered—a mere coincidence. I iron in the furnace, and it is softened—a mere coi dence. I wish to move my hand to my head, an moves—a mere coincidence. A man lets a b fall ten feet on my head, and breaks my skull—a c ing coincidence. Another fires a pistol tow you, and the ball pierces your heart—a h coincidence. But—more on the *tides*, hereafter.

* * *

A New Kind of Wheat.—Advices from St. Pete to the 12th of August, mention that a new variety Arnautka wheat has recently been discovered and cult in Bessarabia. It is called the Kolus, or large-eared w on account of the peculiar beauty of its ears. At pre is limited to mere seed wheat, and fetches twice the the ordinary Arnaukta. One other and important po of this grain is, that it is less affected by drought th other varieties. At the same time it possesses sever features, its deep amber colour, and its earlier ri This important discovery was made by a peasant of the of Bulatowsich, in the villiage of Troitzk, in the dis Bender, who being a close observer of nature, detected crops certain ears which were larger and became ri speedily than the rest of the crop. These he colle sowed separately, and the result was an abundant h and the introduction of a new and valuable variety The event had created a great sensation amongst culturists and dealers in grain, and the new wheat merits being named after its discoverer.

* * *

Laudable.—The authorities of Oswego assume the of planting shade trees in the streets.—The street C sioner advertises for "three or four thousand Elm an suitable trees for border and street shrubbery," to be the present spring.

Veterinary Department.

CHOKED CATTLE.—*Remedy.*—Take any kind of tube, say an elder or quill, and fill it with gun-powder. Open the mouth, hold out the tongue, put the tube as far down as convenient, and blow the powder from the tube into the throat. It will relax the pipe and suffer the obstruction to pass on. Try it. D. S. BUFFINGTON. *Hinmanville, March,* 1849.

* * *

TO PRESERVE A HORSE FROM THE BOTTS.—Take of bees wax, mutton tallow, and sugar, each 8 ounces, put it into one quart of warm milk, and beat it until it all melts and mixes; then put the whole into a bottle, and just before the wax, &c., begins to harden, give it to the horse. Two or three hours afterwards give him physic,

Another Method.—Give a horse occasionally a half pint of hard wood ashes, mixed in his grain and sprinkled, or given in his drink. This is an exellent remedy.

Another.—Give your horse salt freely—as that will, in nine cases out of ten, preserve him from the Botts. If he is attacked by them, give him a quart of warm fish brine; and if the case be a bad one, repeat the dose once an hour. For this purpose, save your fish brine.—*Farmer's Receipt Book.*

* * *

CURE FOR THE SPAVIN.—Take one pound of angle worms, fry them well in a pound of butter, and after it is cool add one giil of spirits of turnentine. Take one ounce Origanum Oil, (sold at the druggists',) which mix in one gill of spirits of turpentine. Every morning, rub the spavin with the angle worm mixture, heated in a shovel over the fire. Every evening rub the spavin with the origanum oil mixture. By the time these are used you will begin to see the horse improve.

During the operation, it will often appear to make him worse; but this must not be regarded as injurious. It does not remove the lump, but the disease will be extirpated.—*Ib.*

* * *

BEWARE OF RING BONE.—If colts stand on a plank or any hard floor that is not well littered, they will be subject to the ring bone. When breeding horses, we left the floor of the colt's stable of the soil over which they were built. If this should be a deep loam, or of a clayey texture, then remove the soil about two feet deep, and replace it with sand, or the finest gravel to be obtained. Colts should always be let out to exercise in a yard, or open space, every day, during the winter, when not particularly stormy: and in this yard there should not be older horses, or any horned cattle which can do them injury. Being very playful they are more apt to provoke attacks upon them than other animals.—*American Agriculturist.*

* * *

CLIPPING HORSES.—Observing a paragraph relative to clipping horses, I beg to state that I have lately been informed that the process injures the constitution of the horse in the long run, causing the animal to wear out sooner, notwithstanding every care may have been taken with him at the time of the operation and subsequently; although it is conceded that at the time of clipping, the horse is thereby enabled to perform his work more easily, and also thrives better.—*Agricultural Gazette.*

* * *

HORSE SKATES.—A writer in the National Intelligencer mentions the invention of Horse Skates, by means of which in cold latitudes, an ordinary horse has been often known to travel as far as 100 miles in three hours, without apparent fatigue. A full set, (he says) of these marvellous skates, bedecked in the Norwegian style, has been deposited in the patent office.

Spirit of the Agricultural Press.

CARROTS.—As I have been a grower and consumer of roots for some few years (especially carrots,) I would, therefore, give what little information I can, all derived from experience. In the first place, I think there is no root ever yet introduced that will produce so great an amount of fattening properties per acre as the carrot. I believe there is no corn or hay, or oilcake or linseed, that will fatten any horse or bullock so soon and so completely as the carrot given in its raw state. Horses, however poor (if healthy), will get fat in a few weeks with carrots only. No hay, no water—in fact, they will not drink if you feed entirely on carrots. Now, as to quantity, if you wish only to fatten let them eat as many as they like; but one bushel per day, with hay, will keep your horses in good working order, without corn, and two bushels per day will fatten them while working without any hay or corn. There is no fear of griping them, as I believe the carrot quite free from any propensity that will produce that effect. I have two horses that are *wintering upon* carrots and hay. They have 40 lbs. of carrots weighed to them, and about 8 lbs. of hay, and they thrive wonderfully upon it. I am such an advocate for carrot cultivation that I should like to see every farmer with some acres every year. I think also it is the most profitable crop to grow for sale, for I believe it is quite possible to grow 50 tons to the acre. Several gentlemen have told me they have 30 tons to the acre this year. Perhaps we have not had so unpropitous a year for a long time, not only the quantity and quality of the carrot is great and good, but the mere cultivation is like subsoiling the land, and it is always kind for any grain after it. I generally grow the white Belgian and Altringham, but I think the short carrot called the "early horn" will grow the greatest weight per acre.

RICHD. WEBB, *in Mark Lane Express.*

WE endorse the above views in full; and during the failure and uncertainty of the potato crop we advise that more atten be paid to the Carrot for milch cows, cattle and horses, and the Parsnip for feeding and fattening hogs.—ED.

SALT AS A GARDEN MANURE.—I can strongly recommend a dressing of this manure (except on very stiff land.) To grow asparagus and seakale in perfection, it is essential, and I find a general improvement effected by its use in the bulk and quality of our culinary crops; it also distroys snails and other insects. For general crops, about ½ lb. to the square yard will be sufficient; this should be sprinkled evenly over the ground when it is bare, and if dry, forked in immediately. To the crops of seakale and asparagus twice this quantity may be given; it should be spread over the beds in winter, or early spring, and either forked in at once or left to be dissolved by the rain.—*Agricultural Gazette.*

AGRICULTURAL EDUCATION IN CUBA.—Three of the principal schools of Havana have instituted a new department in which instructions are given in Chemistry as applied to *Agronomia*, or cultivation of the various kinds of field crops.—*La Cronica.*

PATENT SAFETY BRIDLE.—Mr. H. Seitz, of Marietta, Lancaster county, Pa., is the inventor of a very ingenious Bridle for which letters patent were recently granted, whereby it is impossible for the most spirited horse to kick or run away, and perfectly safe for a lady to drive or ride.—The principle on which it is constructed is to hold the horse by the application of a pulley around which the reins are made to pass at the side of the horse's mouth, which enables the rider to exert a great deal of lever power to control the mouth of the animal, and to check him at any moment.

LARGE POULTRY.—At a show held in England, under the direction of the late Earl Spencer, the following were the dressed weights of some of the poultry exhibited: The best turkey weighed twenty lbs. 4 oz.; capon, 7 lbs. 14½ oz.; pullet, 6lbs. 3½ oz.; goose, 18 lbs. 2½ oz.; couple of duck, 15 lbs. 10 oz.

HOW TO RENDER CLOTH, SILKS, &c., WATER PROOF.—Take one pound, each, of common alum, (sulphate of alumius,) and sugar of lead, (acetate of lead,) and dissolve them in six quarts of boiling water well mixed by stirring. When cold, the top portion of the mixture should be poured off for use, as the sediment consists of sulphates of lead, potash, &c. Any article of dress, no matter how slight the fabric, if well saturated with this liquid, and allowed to dry slowly, will bear the action of boiling water, and not permit it to pass through it.

Editor's Table.

To Correspondents.—Communications have been received, since the publication of our March number, from Agricola, A. Bryant, H., Prof. C. Dewey, Myron Adams, T. C. Peters, H. L. Emery, S. W., Cephas. * †, L. Wetherell, D. S. Buffington, L. B. Manley, Alvin Wilcox, H. P. Norton, J. H. W., Jas. Weed, John Watson, E. Hildreth, M. L. Gallup, J. H. Wyckoff, Reed Burritt, J. R., Clinton Wood, W. H., *, Isaac W. Jones, H. W., A Physician, H. P. Buell, Farmer, A. H. Norris. J. D. C., Westfield, A. Wilson, Jacob Scott, and Subscriber.

Our thanks are due to various old and new correspondents for valuable contributions. We must, however, beg our friends to have patience with us for a while. All of their favors shall be attended to as fast as we can find space, either by publication or such notices and remarks as shall seem most beneficial to our numerous readers. It is our aim to furnish matter that shall be as nearly adapted to the period when it will be practically useful as possible. All contributions that will *keep* over a publication or two, we are at present obliged to defer.

The illness of our Engraver has prevented us from giving a number of illustrations intended for this issue. Several plans of Houses, Cottages. and Agricultural Implements (from new contributors,) shall be given as soon as the engravings can be prepared.

Sowing Clover Seed.—(C. V. J., Clarkson, N. Y.) In answer to your inqniry we have no hesitation in advising you to sow your clover seed; and the first dry time in May or June sow on a half bushel of plaster to the acre, without fail—and if the elements are not extremely adverse we will endorse the result. We think, for the present and immediate use of the wheat crop to be benefitted by the green crop plowed under, that 8 or 10 inches is too great a depth of furrow—though, in a series of years, it will be found beneficial.

Hens Eating their Eggs.—(T. R. S., Omar, N. Y.) We know of no other prventive for hens eating their eggs, than to keep them supplied with lime and gravel in some other shape, and not feeding them the shells, except very finely broken; and by making their nests in a box so deep and small that they cannot reach them while standing on the edge. Hens that are confined are much more apt to commit this fault, than those running at large.

(S. B. F., Livonia, N. Y.) Your article concerning a new and valuable stalk and straw cutter was crowded out last month, and is out of season for this number. As it will not spoil, we shall lay it over until the proper time.

Page's Portable Mills.—We have received several letters of inquiry relative to Page's Portable Wind and Saw Mills, mentioned in our February number—but cannot furnish the information desired. We think Mr. P.'s post office address is Baltimore, Md., and presume that communications directed to him at that place will receive attention.

Premium Arithmetical Questions.—We have received a large number of letters concerning the questions proposed by Mr. Clark in our February number. We will submit them to Mr. C. the first opportunity, and endeavor to publish his decision next month.

Genesee Seed Store and Agricultural Warehouse.—The proprietors of this establishment have a very large and superior assortment of Seeds and Implements for the spring and summer trade. Farmers and others visiting Rochester should call at their spacious and well filled rooms. Their assortment of plows, cultivators, &c., &c., is the most complete ever offered in this section of the country. See advertisement.

New Books.—Among other works received too late for particular notice in this number, are the following: "The American Farm Book; by R. L. Allen," and "The American Bee-Keeper's Manual; by T. B. Miner." Published by C. M. Saxton, 121 Front st., New York, and for sale by E. Darrow, corner of Main and St. Paul sts., Rochester. Price, $1 each.

Draining low lands will contribute to promote health and profit. Generally speaking, our wet and marshy lands are the richest in organic matters, and become the most profitable to the owner, when thoroughly drained.—*Buel.*

The Wool Grower.—This is the attractive title of a new paper just started by our friend and correspondent, T. C. Peters, Esq., of the Buffalo Wool Depot. The initial number is issued in good style, and well filled with valuable matter. In his introductory article, Mr. P. says:—"If I am sustained, it will be well for the farmers and wool growers; and that I shall be I have no manner of doubt. The paper will obtain and disseminate information to be found nowhere else; and it will be the organ of the wool-growing interest throughout the country." We commend the *Wool Grower* to our readers, and trust the editor will meet with the success his enterprise merits, Published monthly—16 pages octavo—at 50 cents per annum. Address as above.

Daguerreotypes of Devon Cattle.—We are indebted to Wm. Garbutt, Esq., of Wheatland, for Daguerreotypes of a pair of four year old Steers, and a two year old Heifer, (Devons,) owned by E. P. Beck, of Sheldon, Wyoming county. The animals represented received the first premium (in each class, as grass fed animals,) at the State Fair at Buffalo, in September last. The "counterfieit presentments" are quite natural and life like, and creditable to the artist—Alex. McDonald, of Buffalo. The likenesses can be seen at our office.

Speaking of Devons—we never saw a more beautiful show of cattle, than was made by the owners of this breed at the Fair at Buffalo. We shall give an article upon the history and merits of Devon cattle, in our next.

The next Fair of the N. Y. State Ag. Society, as we have heretofore stated, is to be held in Syracuse, on the 11th, 12th and 13th of September next. The amount of premiums offered is about *six thousand dollars*. Now is the time for the farmers of Western and Central New York to commence their preparations to add to the interest of the show, and *win the prizes*. We shall endeavor to publish the premium list, or a synopsis of it, in our next. It can be obtained in pamphlet form, we presume, by addressing the Secretary, B. P. Johnson, Esq., of Albany.

Agricultural Societies.—Notices, embracing lists of officers for current year, and premiums awarded at annual meetings of several County Ag. Societies, are necessarily deferred.

Secretaries of Agricultural and Horticultural Societies will oblige us by sending to the address of this journal, local newspapers containing proceedings of their annual and other important meetings.

Facts for Agriculturists.—The exports of breadstuffs from the United States, Sept. 1 to Jan. 1, 1849, as compared with the same period ending Jan. 1, 1848, are as follows:

	Flour, bbls.	*Meal, bbls.*	*Wheat, bu.*	*Corn, bu.*
1848,	95,767	52,715	118,004	606,301
1849,	638,994	45,193	854,005	5,078,712
Increase,	544,227		735,911	4,465,412

Wheat on the Lakes.—At Chicago, Michigan City, Little Fort, Southport, Racine, and Milwaukie, there are one million and thirty-eight thousand bushels of wheat in store, and vessels enough in ports on Lake Michigan to carry it all forward to market.

Cheap Lightning Rods.—No. 1 wire is said to be an ample protection against lightning, put up as the large rods are. War ships use the wire with complete success.

Plowing by Steam.—A steam plow has been tried on a farm near Stratford, in England, by stationary engines at the extremities of the field, and the experiment is said to have been satisfactory. The engine is ten feet by six in bulk, portable with a pair of horses, and may be used for plowing, threshing, or for any purpose where power of the kind is required.

American Prodigalaty.—No observing American comes from the United States to Europe, without soon becoming convinced that economy of living is nowhere so little understood as in his own country; and that for nothing are the Americans more distinguished, than for a reckless waste of the means of subsistence. The refuse of many a family in the United States, even in moderate circumstances, would often support, in comfort, a poor family in Europe.—*Colman.*

Read the advertising department of this number. Observe the advertisement of Books—Mr. Vail's Stock—Stallions—Agricultural Implements—Fruit and Ornamental Trees and Shrubs—and various other matters "too numerous to mention" in this place.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

PROGRESS OF HORTICULTURE IN EUROPE.

THAT the two months we spent among the Gardens and Green-houses of England, France and Belgium were pleasant ones to us, no one will doubt. Winter as it was, we found thousands of rare and beautiful things, the sight of which would repay us for a journey much more tedious and hazardous than the Atlantic, even in winter.

It is somewhat strange that amidst all the revolutions and political excitements—all the want and downright starvation—all the fluctuation in commercial affairs, that have for a few years kept European society in a ferment, bordering on and in many cases resulting in actual explosion—HORTICULTURE flourishes, and that beyond all precedent. At no period in the history of European civilization have horticultural pursuits attracted so much public attention. From the prince to the humblest peasant we find the garden the object of the greatest solicitude. Everywhere a new spirit seems to be awakened—public grounds are being enlarged and improved—collectors are sent at enormous expense to all unfrequented or unexplored parts of the world, exposing themselves to all manner of hardships and privations to bring to light whatever there may be new, curious or beautiful. Commercial Nursery establishments are extending and multiplying rapidly, and these too, are sending out, on their own account, their collectors to China and California, to South America and the Tropics, in search of new plants to enrich their collections. The prices at which new plants are sold is perfectly amazing: for instance, the elegant new Japan Cedar, *(Cryptomeria Japonica)* two to three feet high, cannot be bought at private sale for less than five guineas; five feet, and there are few of that size, ten guineas. So with the new and rare Pines and Firs from California, Mexico and India. Plants of many of them 1 to 2 feet in height cannot be bought for less than from 1 to 5 guineas. With Orchideous plants the same; 10, 20 and 50 guineas are common prices for these, and that too at public sale. The same is true of all other new and rare plants of whatever class or character.

The production of new flowers, by hybridization, such as Roses, Dahlias, Pæonies, Phloxes, Chrysanthums, Camelias, &c., is carried on in the same spirit. Efforts such as have never been previously attempted, are now being made by hundreds of scientific and practical men to reduce this most interesting department to a science, and to base it upon competent laws and regulations, and some ably conducted journals are solely devoted to its advancement.

In the culture of fruits there is no less interest. In all the English horticultural journals no topic at the present moment is more frequently discussed, or calls forth more experiment and investigation than the culture of fruits. The formation of fruit borders, manures, composition of the soil, exposure, pruning and training, are continually discussed with as much interest and animation as if they were entirely new subjects. So it is in respect to the construction and heating of houses, pits, &c., for the shelter and growth of plants, and for the protection and forcing of fruits and vegetables.

The quality of particular varieties of fruits is also attracting unusual attention. Gardeners who never before thought of inquiring whether their fruits were correctly named or not, or whether they had any names, are diligently comparing and testing, approving and rejecting. Nurserymen, particularly on the Continent, who have grown trees for sale for fifty years, without seeing their fruit, and who did not know by sight half a dozen varieties of the hundreds in their catalogue, are just planting specimen orchards to test them, and are beginning to read, compare and make notes and memorandums as to quality, growth, &c. I was astonished to find in some of the oldest Belgian and French nurseries specimen grounds neither so extensive nor so mature as our own, and in many just a beginning. Heretofore they have considered it their business just to *grow* the trees. In a celebrated Belgian horticultural establishment, where an immense fruit Catalogue is annually published, and the proprietor of which has been generally supposed a pomologist, we found not a single tree, nor does the proprietor know half a dozen fruits probably of all that are cultivated. Land we were told had just been purchased for a nursery, and some trees planted last autumn. And yet we have seen a nurserymen in this state take especial pains to advertise that his trees were procured from this source. All the trees ever sent by that establishment to this country were purchased from less noted and equally ill-informed growers. This purchasing of ignorant, irresponsible parties, did well enough in times past; but lately got him into great trouble, and has fairly compelled him to grow trees and study pomology.

The only men to be found, having a critical knowledge of fruits and fruit trees, such as every well-informed nurseryman in America already possesses, were the directors of the fruit department in the public gardens, such as the *London Horticultural Society's*, the *Jardin des Plants* at Paris, Rouen, Brussels, &c., and a few enthusiastic amateurs. The growers of trees did not aspire to be pomologists; and here is the great cause of the thousand and one blunders they have made, and have compelled their kind customers in America to make. But they have now woke up; and here I must say that the American trade has exercised a very beneficial influence upon them. Indeed, they have been compelled by their American customers to commence the investigation and correction of their numerous and long standing errors. Year after year they have been censuring them for mistakes and explaining their nature to them. Orders upon orders have been sent out for particular varieties, and these to be *positively correct*—in many cases the purchaser going into a a minute description of the fruit as well as the tree, in order to enable them to send the genuine article. This has naturally led to the course which we find now very generally adopted, of forming specimen grounds, and testing varieties as we do here. American nurserymen, therefore, may claim the credit of setting men, who are greatly their seniors in cultivation, right in this the most important branch of their business. In future, more reliance can be placed upon the correctness of what we receive from them.

In the culture and management of trees, and particularly garden trees, we have much to learn from the Continental gardeners. It is in Belgium and France we can study how to grow many trees in a little garden, and how to grow them *well*—how to produce beautiful forms, and to hasten and maintain fruitfulness. In all the French and and Belgian gardens one is struck not only with the economy which prevails in filling every nook and corner, covering every wall or fence, with something for use or ornament; but the observer is also delighted with the appearance of propriety and fitness about every thing. You will not find an immense apple or pear tree, or a clump of old plum trees, or two or three great quince bushes covering nearly the entire garden; but you will find elegant pyramidal pear trees, or apples as pyranills on *doucain stocks*, or in bushes, on *paradise;* cherries either in pyramids or bushes, on *mahaleb* stocks; apricots, nectarines and peaches, in espaliers; plums, quinces and filberts, in pyramids; gooseberries, currants and grapes, when the gardens are small, trained on the walls. These trees are not only beautiful objects, but bear large crops of fine fruit, superior in size, flavor and beauty, as a general thing, to that produced on standards; and then the advantage of enjoying such a variety on a little spot, and of having trees at all times perfectly manageable —for these dwarf trees can be moved from one place to another, at any age. The gardens around Rouen, in France, were the best I saw any where in regard to fruit trees. As I passed the streets I noticed many little gardens that I wished I could take with me, and set down in Rochester, as a model. But the Rouen people have a thorough love of these things, and they have a capital teacher, in Professor Dubriel, director of the fruit department in the Botanic Garden. His trees are the best specimens I have any where seen, not only perfect pyramids—absolutely perfect—but they are covered with fruit buds, and in the most perfect health and vigor; so are his cherries and plums, filberts, &c. His espalier peaches, apricots, nectarines, gooseberries, &c., are all as perfect as any artist could draw on paper. Many of the French works on pruning give examples that had no existence but in the imagination; but Prof. Dubriel has created his illustrations, first in his garden and then on paper. The citizens of Rouen are admitted freely to see this elegant tree culture, and benefit by it. Mr. D. also gives lessons in pruning; his classes meeting at regular hours, each scholar with his pruning knife. He proceeds, and they follow, through the whole minutia of both the principles and practice. One day he takes apples, another pears, and then peaches, and so on through all the fruits, in all their forms. To these practical teachings he adds lectures, and these lectures and lessons on pruning and arboriculture are attended not by mere gardeners, but by large numbers of gentlemen of wealth desirous of being able to assist in the direction and management of their own gardens.

On the occasion of my visit on the 6th of January last, the pruning classes were about opening, and I met in the garden a Mr. Bard, a respectable merchant of the town, who had been a pupil, and so apt an one, that his own garden, though small, is one of the best managed in France, and that by his own hands at his leisure hours. I have never met an amateur so enthusiastic or so well skilled in the treatment of garden fruit trees. He had just contrived a new style of scale for giving the proper angle in the various modes of espalier training, and had come to show it to Mr. Dubriel.

Some ill-informed persons in this country since we commenced to direct attention to pyramidal and dwarf garden trees, have raised a cry against pears on quince stocks, as being short lived; but I have seen trees 30 years old in the most perfect health and vigor, and all over the continent trees may be found 50 years old.

I shall have something to say at some other time of Mr. Dubriel's method of culture.

TREE PLANTING.

We need hardly urge upon planters the necessity of the utmost care in every particular. The ground should be thoroughly prepared. In all cases it should be, as we have often said, trenched or subsoil plowed, and properly enriched, so that the young roots may spread out freely on all sides, and find abundant nourishment. If people were half so zealous in the proper preparation of the ground, in the planting *well*, and in the after culture of trees, as they are in seeking for trees of *large size*, they would find their labors much more successful and profitable in the end. Many we have known to utterly refuse to plant a tree because it was not so tall that the "cows could not reach its branches." Such persons have much to learn about trees.

The well-informed, careful cultivator cares but little for size, if he gets a good, healthy, well-grown plant of the right sort. The purchaser of young trees has the advantage of shaping them to his own taste and convenience—and this is a consideration of some consequence.

The careful treatment of the roots is another important point. They should neither be bruised, broken, nor exposed to the air until they get dried.

After being well planted they should be neatly tied to stakes, and have the surface of the ground around them cleaned and loosened every two or three weeks during the growing season. With such care, it is surprising how soon trees attain size and fruitfulness; and without this care, they had better never be planted.

By way of answering several correspondents in regard to distances, we subjoin the following table, which according to our experience is about right, in general.

SPECIES.	FORM.	STOCKS.	DISTANCES.
Apples,	Standard,	Common,	30 to 40 feet.
"	Pyramid,	Com'n or Doucain,	10 to 12 "
"	Dwarf,	Paradise,	6 "
Pears,	Standard,	Pear,	30 "
"	Pyramid.	"	12 "
"	"	Quince,	9 "
"	Dwarf,	"	6 "
Cherries,	Standard,	Mazzard,	20 "
"	Pyramid,	Mahaleb,	10 "
"	Dw'f bushes,	"	6 "
Plums,	Standard,	Plum,	18 "
"	Pyramid,	"	9 "
Peaches,	Standard,	Peach,	18 "
"	Pyramid,	Plum,	9 "
Apricots,	Standard,	Peach or Plum.	18 "
"	Dwarf,	Plum,	10 "
Nectarines	"	"	10 "
Quinces,	Standard,		12 "
"	Pyramid,		9 "

Currants, - - - - - - - -	4 feet.
Gooseberries, - - - - - - - -	4 "
Raspberries, - - - - - - - -	3 "

The *Prince Albert* is considered the best early variety of peas; next to this, the *Early Washington.* They may be planted as soon as the ground is settled.

PLANTING TREES ON CLAYEY GROUND.

BY A. BRYANT.

Mr. Editor:—I notice in the Horticulturist of February a communication from Mr. J. Fulton, Jr., a nurseryman in Chester Co., Pa., detailing his method of preparing ground for and planting an orchard which seems to me to be calculated to mislead the inexperienced, who may be induced to practice after his example.

His preliminaries are excellent, except "digging the holes;" the most critical and importont of all. In this I think he is entirely wrong, and that before he becomes the profitable proprietor of an orchard thus planted, he must be his own customer for a second lot of his fine two-year-olds. The work commences by "digging the holes from 4 to 5 feet square and 2 deep, throwing the clay subsoil entirely away." Now, allowing there to be eight inches of good surface soil, it follows that he must remove sixteen inches of solid clay, forming a basin large enough to hold three barrels of water, and almost as capable of retaining that element as any vessel that a potter could produce. And over this reservoir, after filling in with rich compost, he proposes to place his young trees—which I think is a great mistake.

How tenacious the clay may be on his place, I do not know, but in ordinary clayey-subsoil I am sure they would realize the presence of "water-cure" at least until midsummer, and if they did not die out the first or second year after planting, but should survive such ultra hydropathic treatment, their stinted groth and annual crop of moss, for the first ten or twelve years of their youth, would evidence to the planter that he was sadly mistaken in the premises, or that his trees were endued with sense enough to rebel against their destiny.

I have known many trees to be destroyed by pursuing the above method. The water should never be permitted to lodge under the roots of a tree. Where the subsoil is a heavy clay, the ground should be worked quite two furrows deep, and thrown into ridges by frequent plowings to the center, until the depth of two feet of good soil is obtained, when the trees should be set at the desired distance, on the middle or highest part of the ridge.

Staking and mulching are indispensable in this case, as the evaporation is greater and the tree more likely to be rocked by the winds from its position, than when the subsoil is soft and presents no obstruction to the downward direction of the roots. Frequent wetting of the stem and branches during the first summer after planting, especially if the season be dry, will be found far more beneficial than watering at the roots, a practice I am satisfied that kills more trees than it saves. It is proper to observe that wetting should always be performed toward evening, and never at any other time. *Erie County Nursery, Buffalo, N. Y., February*, 1849.

With Mr. Bryant we deprecate the practice of digging deep holes for trees in a damp, clayey soil. Far better keep the roots near the surface, within the reach of heat and air, and good wholesome food. —Ed.

The Beet Root was first brought from the shores of the Tagus, and was cultivated in gardens, on account of its elegant leaves and the rich red color of its roots, two hundred years before it found a place on our tables as an esculent luxury.

ANSWERS TO CORRESPONDENTS.

DWARF APPLE TREES.

M. L. Burrall, *Lockport*. A standard apple tree requires to be planted at least thirty feet apart; dwarf bushes on Paradise stocks, about five or six—so that you may have a very interesting collection in the place of one tree. And these dwarf trees when seven or eight years old, will bear, if properly managed, from half a bushel to two bushels of fruit according to the nature of the variety—they bear very early, say the second or third year from the bud or graft, but, of course, the quantity is small at first. The French grow very nice pyramidal trees on the *doucain* stock, a species that holds an intermediate rank between the Paradise and the crab or common stock. These pyramids would perhaps suit your purpose best, if you could get them; they may be planted ten feet apart.

But the production of large quantities of apples should not be aimed at in a garden, because it is an impossibility. We do not hesitate to say that much more pleasure and profit will result from the bushes or pyramids than from the standards. In the grounds of Mr. Rivers, of Sawbridgeworth, we saw a little plantation of 360 dwarf apple trees on paradise, on about ten square rods of ground. For your benefit and others, we give, in another place, a table of distances.

CERASUS MAHALEB.

A. Thompson, *Otisco*. This is what is called the perfumed cherry on account of the leaves, wood and blossoms having a strong perfume. It is a native of the south of Europe. It is a branching tree with smooth, glossy, light green foliage, and attains the height of 20 or 25 feet. It bears small, roundish, black, bitter fruit, and is remarkable for flourishing on the poorest soil. It is cultivated in British gardens as an ornamental tree, but extensively used by the French for dwarfing the cherry tree. The first year or two the free growing sorts make as strong growth in it as on free stock, but afterwards they shoot less vigorously and become very prolific. It is raised principally from seeds as the mazzard, and may be worked the second year. The price of stock fit for working is about $5 per 100 in the nurseries here, being mostly imported. The price of Paradise stock is, we believe, about the same.

The Cottage Garden of America, containing practical directions for the Cultivation of Flowers, Fruits and Vegetables: by Walter Elder. Philadelphia, Moss & Brother.

The above is a neat work of about 250 pages, with which we have been favored by the publishers. The author claims that he has taken untrodden ground; that other works on the subject of gardening have been designed for the rich, while his book is "addressed entirely to the cottagers of America."

Mr. Elder is an experienced gardener, making no pretension to literary acquirements, being more accustomed, in his own language, "to the spade than the pen; and better at laying out gardens than making books." This work, however, is the fruit of long practice and close observation; and although the best gardeners differ somewhat in their practice, the author declares that "every article in the book will stand the scrutiny of practice." It contains a large amount of matter in a small compass, and will be a valuable book for the "cottagers of America."

Premiums for Seedling Grapes.—Mr. Longworth, of Cincinnati, has lately offered premiums of $50 each for a seedling Catawba, Ohio, Herbemont or Missouri grape, equal to the original, and of a white, blue or black color. It is not considered a difficult matter to obtain seedlings of the proposed colors. White seedling Catawbas have been already grown in the vicinity of Cincinnati.

Cuttings and grafts, when sent to a long distance, should be enveloped in pieces of oil cloth. This preserves them from the action of the air.

CULTIVATION OF LIMA BEANS.

Mr. Editor:—I hand you for publication in the Horticultural Department of your paper, a communication from one of our citizens in relation to the cultivation of Lima Beans, presented to the *Horticultural Society of the Valley of the Genesee.* Should the experiments of others prove as successful as have those of Mr. Seward, we may hope soon to see our market well supplied with this most excellent and valuable table vegetable. L. A. Ward.

By the request of the President of your Society, I submit the following details of my experience in cultivating this plant for some time past. It is now about eight years since my attention was called to the article by Mr. Bateham, at that time of the Rochester Seed Store. I purchased a single handful for a shilling, and have succeeded in perfecting a sufficient quantity for use and for seed since that time, not exceeding fifteen or twenty hills in a season. In the mean time, having had an opportunity for observing the peculiar habits and necessities of the plant, I prepared last spring a strip of ground equal to two square rods, on which were planted about sixty hills, with four seeds to a hill, which *averaged,* after the common catastrophies of germinating, and the depredations of the cut-worm, two and a half matured plants to the hill. They grew as usual in the months of July and August with great vigor, some of the vines attaining a length of more than twenty feet. The bean was sufficiently matured for cooking about the 15th or 20th of August, and from that time to the last of October they were gathered freely for the use of a small family. A half peck was submitted at the exhibition of your Society about the 20th of September, to which was awarded a premium of two dollars.

Mr. Fogg, of the Seed Store, desiring to obtain for seed what might mature at the rate of seven dollars the bushel, I had them carefully gathered about the 10th of November, amounting to a full half bushel of plump dry seed, in addition to which there was nearly a peck of dry beans not considered sufficiently ripe for seed, which we find to be as great a luxury for the table in winter as they were in the fall. Under all these circumstances, the crop cannot be considered less than one bushel, at $7. (It is said, by the way, that the article is considered in the Philadelphia market as good as lawful tender for $10 the bushel.) One acre of ground at this rate would produce eighty bushels, and at $7 a bushel, $560 —enough one would think to satisfy the rapacity of a California gold digger. The inferences to be deduced from the foregoing statements are, first, that there is no good reason why our vegetable market should not be as well supplied with this *real luxury* as are the markets of New York and Philadelphia; and second, that they can be produced for market, in quantities and at prices that would place them in reach of all our citizens.

The Lima Bean, as its name indicates, is a native of Lima, in South America, introduced into the United States probably within the last thirty years. It is consequently a little out of its latitude in Rochester. It will be necessary, therefore, to secure the greatest success in cultivating it, that you select a warm, sandy rich soil, if possible a little elevated from the plain, as such elevations will often escape a frost in spring which would destroy the plant a hundred yards distant on a plain ten feet below, and it will be apt to be too late to plant this bean a second time. The same will be true of the frost in the fall, when every day will be needed to perfect the crop. They should be planted between the 1st and 15th of May, immediately after a warm rain, so as to get them up if possible before it rains again—a few cold wet days, or a hard crust on the surface, may destroy a large part of your plants after they have sprouted and before they are up. The vines, after they commence running, will need a little assistance in attaching themselves to the poles; the cultivation after this need not vary from that of other beans. The roots may be pulled up in the fall or cut off near the ground, and the beans left to dry on the poles.

To those who are entirely unacquainted with this vegetable it may be proper to state, that the Lima Bean is to all other beans what the Marrowfat Pea is to the common Field Pea. It is a large white bean, growing three in a capsule or pod, rich and buttery, having the starchy or beany taste peculiar to the family scarcely perceptible. J. W. S.

A WORD ABOUT PEARS.

BY H. P. NORTON.

In the spring of 1846 I gave a neighbor scions of the Bartlett: which he inserted on bearing trees, and in September, 1848 delivered me a specimen of large and excellent fruit gathered from those scions.

In August, 1847, I budded several varieties upon stocks of the apple or orange quince. This day I have measured the growth, and thinking the results may be interesting and perhaps useful, furnish them:

	HEIGHT.	DIAMETER AT BASE.
Bartlett,	4 feet 9 inches,	[illegible] inch.
Beurre d' Aremberg,	4 " 2 "	[illegible] "
Summer Bon Chretin,	5 "	[illegible] "
Jargonelle,	4 " 8 "	[illegible] "
Rousselet de Rheims,	2 " 9 "	[illegible] "
White Doyenne,	2 " 4 "	[illegible] "
Gray Doyenne,	2 " 1 "	[illegible] "

Golden Beurre. of Bilboa, grafted April, 1844, shows the following height of main stem, 2 feet 10 inches; 6 side shoots, 21, 11, 9, 9, 8, 4 inches, making, making the entire growth 8 feet. Diameter [illegible] inch.

I am surprised that Beurre Diel on quince is not more frequently and more highly recommended by cultivator's of fruit and conductors of pomological publications. The rapid advance, hardiness, productiveness of the tree, and the large size and excellence of the fruit render this, in my poor opinion, a desirable variety. Indeed, I do not know its superior.

You will have observed that Mr. Downing has recently in the Horticulturist, uttered strong animadversions upon the practice of giving long and deceptive lists of pears in Nurserymen's Catalogues, and affirms there are not over twenty varieties really worthy of cultivation. If this be true, a very obvious inquiry suggested is, Why has he in his Fruits and Fruit Trees described 233 varieties? If not worth cultivating, why fill the book with their description? The book was designed to be, and has become a standard work, for the information and guidance of those who desire to grow good fruit At least 80 to 100 of these varieties are expressly pronounced to be "first rate," "excellent," "delicious," "worthy of cultivation," &c., so that no reader can doubt the author intended to recommend them as desirable, and entitled to a place in fruit gardens. If those who raise trees to sell are censurable for putting before the public extended lists with an indiscriminate recommendation of the varieties, is not the writer of a standard work justly obnoxious to severe rebuke for misleading the uninitiated in a similar manner? In the one case purchasers are likely to suspect the representations and are on their guard; in the other, discovering no motive for over-wrought descriptions, they are more liable to be injured. *Brockport, March,* 1849.

The idea of reducing the list of pears to about a dozen of the best varieties is rather utopian, while so many tastes exist and so many climates and localities to be suited. Nurserymen are compelled to grow a great variety, but people are by no means compelled to buy them.—Ed.

Ladies' Department.

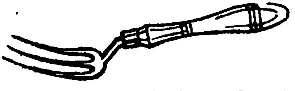
GARDENING FOR LADIES.

Mr. Downing, in the February number of the Horticulturist, when urging the ladies to decorate their homes with climbers and creepers—the drapery of nature, more beautiful far than festoons of satin and gold—says: "All that is most graceful and charming in this way owes its existence to female hands. * * * They are naturally mistresses of the art of embellishment. Men are so stupid in the main about these matters, that if the majority of them had their own way there would neither be a ringlet nor a ruffle, a wreath nor a nosegay left in the world."

Without entirely assenting to the truth of the above, we would say that the ladies have ever been considered, the world over, the almost exclusive patrons of flowers. And we know of no employment—no exercise or recreation—so conducive to health and happiness—none that will bring so effectually the glow of health to the cheek, and of joy to the heart, as Gardening. It not only furnishes exercise, but exercise in the open air, and that regularly. While riding and other modes of exercise are attended with expense, and inconvenience, and loss of time, and are seldom attended to regularly, even by those most favored: yet she who cultivates a flower garden, and loves flowers, will seldom neglect her daily task. The ever encroaching weeds, the necessities of her plants, call daily for her attentions—and seldom calls in vain.

The healthy appearance of English ladies is noticed by all American travellers. And for this they are in a great measure indebted to their passion for gardening. All English ladies work in their flower gardens, from the proudest princess to the poorest cottager.

When the hoe and the spade were almost the only garden implements in use, ladies had some excuse for neglecting to cultivate their gardens with their own hands; but now, implements are made so light and convenient, especially for ladies' use, that there would seem to be no excuse. The *Ladies' Garden Fork* is one of the most useful of these, either in the garden, or among plants in pots. The *Transplanting Trowel* is a light and convenient implement for preparing the ground for small plants, and for removing them to the desired place, without disturbing their roots or checking their growth. We see advertised in the eastern papers *Ladies' Gardening Gloves;* but we would not advise our fair readers to be particular about the *mittens.*



The architect may design, and the builder erect, the stately mansion or the simple cottage; it may be faultless both in design and execution, yet it stands stiff, unmeaning and lonesome;—but let some fair hand surround it with the drapery of nature—leaf and blossom—and it is changed as if by magic; its deformities, if any, are hid, its beauties heightened, and it becomes at once the abode of grace and beauty.

Soda Coffee.—The flavor of coffee may be very much improved by adding forty or fifty grains of carbonate of soda to each pound of roasted coffee. In addition to improving the flavor, it neutralizes the acid contained in the infusion.

Boys' Department.

Boys Look at This.—*The Orphan's Gratitude.*—Hon. A. H. Stevens, of Georgia, in a recent address at a meeting in Alexandria, for the benefit of the Orphan Asylum and Free School of that city, related the following anecdote:

"A poor little boy in a cold night in June, with no home or roof to shelter his head, no paternal or materal guardian or guide to protect or direct him on his way, reached at nightfall the house of a rich planter, who took him in, fed, lodged and sent him on his way, with his blessing. Those kind attentions cheered his heart and inspired him with fresh courage to battle with the obstacles of life. Years rolled round, Providence led him on, he had reached the legal profession; his host had died; the cormorants that prey on the substance of man had formed a conspiracy to get from the widow her estates. She sent for the nearest counsel to commit her cause to him and that counsel proved to be the orphan boy years before welcomed and entertained by her deceased husband. The stimulus of a warm and tenacious gratitude was now added to the ordinary motive connected with the profession. He undertook her cause with a will not easy to be resisted, he gained it; the widow's estates were secured to her in perpetuity; and Mr. Stephen's added, with an emphasis of emotion that sent its electric thrill throughout the house, "that orphan boy stands before you!"

Arithmetical.—*For the Boys.*—To find the square of any number, or series of numbers, having the square of any other number given.

Rule 1.—To the square of the number, (the given square,) add twice the number increased by *one*, and the sum will be the square of the next greater number: thus, $12^2=144$; and $144+12+2+1$. $(=25,)=169$, the square of 13; &c.

2.—From the square of any numbers, subtract twice the number diminished by one, and the remainder will be the square of the next less number; thus, $12^2=144$, and $144-12+2-1$, $(=23,)=121$, the square of 11; &c.

Why? Boys.—H. *Down East, Feb.*, 1849.

Enthusiasm.—Nothing is so contagious as enthusiasm; it is the real allegory of the tale of Orpheus; it moves stones—it charms brutes. Enthusiasm is the genius of sincerity, and truth accomplishes few victories without it.

Early Poverty a Blessing.—An English judge being asked what contributed most to his success at the bar, replied, "Some succeed by great talent, some by a miracle, but the majority by commencing without a shilling."

The three most difficult things are, to keep a secret, to forget an injury, and to make good use of one's leisure.

Dr. Franklin, in speaking of education, says, "If a man empties his purse into his head, no one can take it from him."

OUR PRESIDENTS.

First stands the lofty Washington:
That noble great immortal one;
The elder Adams next we see,
And Jefferson comes number three;
Then Madison is fourth you know,
The fifth one on the list Monroe;
The sixth an Adams comes again,
And Jackson seventh in the train;
And Harrison counts number nine;
The tenth is Tyler in his turn,
And Polk eleventh, as we learn;
The twelfth is Taylor, people say;
The next we'll learn some future day.

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Market Prices of Agricultural Products.

New York, March 22—7 P. M.

Flour—Flour rather heavy. Sales 3.000 bbls. at 5.87 *a* 5.60, with an occasional sale at something off.

Grain—Yellow Corn firm, but white heavy. Sales 25,000 bu. at 52 for white, 59 *a* 60 for northern yellow. Rye 60½. Oats 37 *a* 39. Barley 62.

Provisions—Pork has a speculative tendency. Sales at 9 *a* 9 12 and 11 *a* 11.12. At the close 9.25 and 11.25 was asked. Beef firm. Lard 6 *a* 6½ N. Orleans, 6½ *a* 6¾ for prime. Sales 1000 kegs. Butter and cheese without change.

Seed—Clover 6 *a* 6½ for old and new.

Ashes—Are $6.75 for Pots, $7 for Pearls.

Rochester, March 23. 1849.

In consequence of the bad state of the roads, but little produce has been offered in market during the past ten days

Flour and Grain.—Flour is selling at $5—some holders ask $5.12. Wheat $1.13 *a* $1.16 per bushel. Corn 46 *a* 47 cents. Rye 53 cents. Barley 50 cents. Oats 30 cts.

Seeds.—Clover $3.50 *a* 4—retail, $3 75 for medium, and $5 for large kind. Timothy $2 *a* 3. Flax $1.

Provisions.—Pork (Mess) $13 *a* $14 pr. bbl. Beef $5 per cwt. —mess $7 *a* $8 per barrel. Butter 12 *a* 14 cents. Eggs 13 cts. Cheese 6 *a* 6½. Lard (tried) 7½ *a* 8. Maple Sugar 10 cts.

Buffalo, March 22.

There is more disposition on the part of the holders to sell than for some time back. In Flour good brands are generally held at 4.62½ Mess pork sells at $13; prime $9 50.

To Agents, Post-Masters and Subscribers.

Agents, Post-masters and other friends of the Farmer will bear in mind that we offer Premiums amounting to OVER TWO HUNDRED DOLLARS (in Agricultural Books, Implements, &c. at cash prices,) for subscribers obtained before the 20th of April next. We have not room to publish the list of Premiums in this number, but will send it, together with show bill, specimens, &c., to all who wish to compete.

Friends, will you show the Farmer to your neighbors and acquaintances, and invite them to subscribe?

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

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THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—MAY, 1849. NO. 5.

Farm Husbandry.

PRODUCTION & CONSUMPTION OF MOLD IN SOILS.

Few subjects are more interesting than the natural laws which govern the production and consumption of organic matter in soils. By the terms "organic matter" the unlearned reader will understand a substance, which was once a part of some living vegetable or animal, and was organized by vitality.

On all lands covered with forests or other growing vegetation, the production and consumption of mold are constantly in progress. When production exceeds consumption there is of course an increase of vegetable matter on the surface of the earth. On the other hand, if from any cause the decomposition of mold is larger than the additions to it, a diminution of the amount of organic matter ensues.

The quality and agricultural value of mold depend mainly on the character of the plants by the decay of which it has been formed; and by the length of time which the vegetable debris has been washed and leached by rains, since the vegetables ceased to live. Plants and forest leaves that abound in azote or nitrogen, in sulphur, phosphorus, lime, potash, soda, magnesia and chlorine, yield a far richer mold than such as contain very little of the elementary bodies named. One hundred pounds of wheat, oats, corn, peas, beans, clover, and cabbage, will produce in rotting, better mold for all agricultural purposes, than a like weight of pine wood, rye straw, or other vegetable substance which is poor in bread and meat-forming elements. Common wood and all plants lose a portion of their earthy salts, (which appear as *ashes* when they are burnt) if long soaked in water. Old and long weathered cornstalks, grass and straw will have parted with more or less of their fertilizing atoms by protracted exposure. Hence, after plants cease to live and begin to decompose, the sooner they are plowed in, and mingle with the earth, the less they lose, and the more valuable they are to enrich the soil. The process of disorganization is governed by chemical laws as certain and uniform, as those which regulate the re-organization of the same or similar atoms, in developing the germs of a new generation of vegetable existences.

The elements of water, oxygen and hydrogen, which exist in all plants, separate and pass off faster in mold than carbon and azote. It is carbon, or the great element of coal and lamp-black, that renders muck and mold darker colored than were the vegetables, before they began to undergo any chemical change. Light, heat and moisture hasten the decomposition of all vegetable and animal tissues, and the consumption of their remains or mold on the surface of the earth. The same natural agencies equally favor the growth of plants, and the re-organization of mineral matter to serve as food for animals. The tillage and cropping of the husbandman, being purely artificial operations, are extremely liable to destroy the balance in organic nature, to the injury of the soil.

Tillage greatly promotes the decay of organic elements in soils, and the solution of the before nearly insoluble salts of silica, lime, potash, magnesia, &c., that furnish aliment to all crops. Vegetable and animal substances when rotting, evolve gases, which attack insoluble compounds of flint and lime, potash, soda and magnesia, and render all these minerals available to growing plants, which imbibe them through their roots, and fix them permanently in their tissues. In nothing is the wisdom of God more perceptible, than in regulating the solubility of mold and the minute particles of rocks, which together, form all the diversified soils on our planet. Without this admirable adjustment for hourly, daily and annually feeding plants, which in turn feed animals, both would soon cease to be on the earth. How shall we make plain to the comprehension of a child, the science of feeding plants—the art of accumulating bread, meat and fruit in the soil?

In 100 parts of fresh, lean meat there are 77 parts of water which may be expelled by drying. In 100 parts of perfectly dry beef there are 4.23 of *ash*, or incombustible salts. Muscle contains about 15 per cent. of nitrogen; and nearly 52 of carbon. The other constituents are oxygen and hydrogen, or the elements of water. Lean meat, like the seeds of cereal plants, contains sulphur, phosphorus, lime, iron, and all the elements required to form bones, brain, nerves, skin, &c. Hence, a dog or other carnivorous animal can subsist on lean meat, or on bread and water alone. A good cow extracts from the soil in her food, some 40 or 50 lbs of bone-earth, in the course of a year. Thirty pounds of this will be given in her milk, which will be sold, probably, in cheese, and the balance will be in her urine and dung. In 100 lbs. of wool there are five pounds of pure sulphur. In 100 lbs. of gypsum there are some 20 of sulphur. Gypsum aids in making clover, peas and beans, and they make wool; and old woolen rags will form rich mold.

For the same reason, clover, peas, and all leguminous plants, yield valuable food for a crop of wheat. But to begin at the beginning: How is a farmer to raise large crops of grass, clover or peas on *poor land?* The thing cannot be done without manure, or good ashes to furnish the constituents of the crops, which nature demands, and the soil does not contain. It is silly to believe for a moment that two tons of timothy or clover hay, or 20 bushels of wheat, can be organized out of *nothing*, or from any other materials than such as the Creator of all things has appointed for that purpose. So far as the subsoil possesses lime, potash, phosphorus and sulphur, deep plowing and subsoiling will render these elements available to cultivated plants. But on most soils, it will be found good economy to apply lime, plaster of paris, ground bones, salt, forest leaves, wood ashes, and all the manure one can possibly save, or make on the farm. There is just as much propriety in laying up raw materials for making wheat, corn and potatoes, as there is in having a crib or store house full of grain for making bread. Lands thickly set in grass and not injudiciously fed, nor mown, i. e. not robbed of their products, will gain from the subsoil and atmosphere, the organic and inorganic elements of human food and clothing. To scarify old pastures with a sharp harrow, sow more seed, and apply a top dressing of gypsum, is often followed with the happiest results. Similar treatment of meadows, or a top dressing of ashes, or one of lime alone, will greatly increase the product, in most cases.

It will not do to be ever removing grass in the stomachs of domestic animals from pastures, and hay and grass from meadows, and make no return. This is the right way to impoverish an estate, and render it comparatively worthless. Remember that, by improving land, you lessen the expense of raising every thing of a vegetable or animal nature which it yields. Very few men make the difference large enough between the price of poor, and that of good land. Every acre should be reasonably certain to give 50 bushels of corn and 25 of wheat. A plenty of lime, of potash, and of the mold formed by pea vines and clover, will achieve such a consummation.

If the surface and subsoil naturally lack lime, its sulphates, phosphates and carbonates—if the earth has a small allowance of potash, magnesia, soda and chlorine in its composition—it is unreasonable to expect large crops annually, which consume in growing, a good deal of these indispensable elements. Soils poor in alkalies and alkaline earths, must not be expected to yield much bread and meat per acre, no matter how large a quantity of swamp muck is added, unless lime, potash, phosphorus and sulphur are added also. Bones, gypsum and salt, or good wood ashes, will give rich mold, by the aid of clover, peas, grass or corn; and a mold rich in the elements of flesh and bones, will be certain to furnish the farmer with cheap potatoes, cheap bread and meat. In raising wheat, it is not desirable to have a soil largely stocked with organic matter. Hence, it is often better to have the 40 per cent. of clover voided in the dung and urine of sheep, evenly spread and distributed in the soil of a wheat field, than to plow in the whole crop without permitting any animal to feed upon it. In the latter operation, more than twice as much organic matter is added to the soil, as in the former. Whenever an agriculturist has reason to believe that a field lacks mold, he should grow crops and plow them in, rather than pasture it, or otherwise consume the vegetables that it produces. This will augment its mold.

DAIRY BUSINESS.

Our northern friends must look sharply to their cows, their pastures, meadows, root, corn, and other forage crops; for Virginia, North Carolina, Georgia, and Tennessee are already in the field as competitors in the dairy business. There is not a State in the Union in which both cheese and butter can not be made. Like all other arts, that of rearing good milkers, keeping them well and cheaply, and at the same time manufacturing choice butter and cheese for market, demands experience, care and study. The operation is mainly performed in those seasons of the year, when all animal substances, like milk, whey, buttermilk, and curd, are extremely liable to chemical changes which injure the products of the dairyman. Only a small portion of the butter and cheese made in the United States is really first rate. And why not? The milk is good when drawn from the udder, but it is badly handled ever after. Less attention is paid to keeping milk pails, pans, churns, cheese tubs or vats, perfectly sweet and clean than is required to secure the best results. Butter when taken from the churn is not properly worked over; nor salted with pure salt; nor protected from the influence of atmospheric air, as it should be. The germ of that peculiar change, known by the common name of "frowy," is early planted in a mass of butter, although undeveloped for weeks or months.

Butter and cheese which are put up wrong, if kept any time, will never come out right. The changes which they undergo present a subject for close and curious study. As in curing meat, good salt, pure air, and the entire exclusion of oxygen from butter in kegs, and cheese in a well oiled, impervious rind, are the leading matters to be attended to. In cheese-making, the heating of the milk, the condition of the rennet, the quantity used, and the quantity of salt, the degree of pressure on the curd, the time for it to be in press, the turning of cheese, surrounding with cloth, &c., &c., are all details of great importance. To incorporate into the cheese all the casein (curd) and butter which the milk contained, and preserve both sweet and delicious with aroma, peculiar to each, are the objects to be attained. Keeping milk too long, bad skins, using too much rennet, too much scalding, impure salt, excessive pressing, neglect in turning and oiling, and an offensive atmosphere in the dairy room, are among the most common causes which injure cheese.

Butter is damaged by permitting cream or milk to stand too long before churning; by the defective working out of the buttermilk; bad salt; and too long exposure to the atmosphere before it is packed down in crocks or tubs. Keep the air from your butter as much as practicable.

Plant carrots and corn in drills for your cows; and see that they are milked regularly and clean. A little labor will often produce a good crop of pumpkins. The main point is to raise a full supply of good food, and take care to husband all their manure as well as other products.

Keep Bees.—Bees cost nothing for their food, neither for their pasturage in summer, nor for their provisions in winter.

ECONOMY OF FARMING.

BY AGRICOLA.

In every department of industry, except that of the farmer, special effort is made to cheapen the expense of producing articles of manufacture. This has resulted in diminishing also the price at which articles are sold, though the profits to the manufacturer, from the extensive sale of his articles, are larger than formerly. Why then, may it not with propriety be asked, does the farmer in most instances continue in the beaten track of olden time, instead of availing himself of the facilities which have been furnished him for cheapening the cultivation of his farm? How many farmers content themselves with a preparation for a single crop, instead of adopting a system of manuring that will, by a proper rotation, be available for a succession of crops. How little attention is given, after all, to systems which have been adopted, by which the products of many farms have been largely increased, and the expenses of cultivation, by the use of improved implements and the right use of manures, have been very materially lessened.

Now it must be evident, that any farmer who does not avail himself of the means within his reach, and thus economise the expenses of his farm, is pursuing a course that must result in great loss, and in permanent injury. It may be said, and doubtless truly, that this deficiency arises from want of information. But are not our agricultural journals published at such rates as to bring not only one, but several within the means of every farmer ? and can it be excusable in a farmer, to make his ignorance his apology, when the necessary means of information are placed within his reach ? Our farmers read far too little of what is going on in the world around them. In the pages of our agricultural journals, in the proceedings of our agricultural societies, information is afforded that would enable one of these farmers greatly to increase his income, while at the same time his farm would be rising in value and increasing in fertility. Let me then urge upon the farmers of our country to patronise liberally the agricultural press. Give to their columns the results of experience on their every farm—add to the usefulness of these works by contributing the results of their observations—and thus make these papers what the editors desire them to be, the repository of the experience of practical farmers. Were this done, I doubt not, economy in the management of the farm would prevail every where, as it now does in comparatively few localities.

In addition to this let the farmers unite in town, county and State associations for the improvement of agriculture. Here a farmer meets his brother farmer, canvasses the methods of farming pursued, hears what others may advance in favor of new methods of cropping and culture; his own mind is quickened, his desire for improvement is aroused, and I hesitate not to affirm, that an advance will result from this intercourse. The mind of the farmer must be aroused—he must become a *thinking* as well as a working farmer—and whoever knew the thinking, reflecting farmer who was not, in the main, a successful one? Encourage also the introduction of agricultural education into schools—and the establishment of institutions for the especial benefit of the agricultural class. Why should not this be done ? Do they not deserve this at the hands of their legislators ? Shall it be said, that the farmer who feeds all, who mainly contributes to the support of government, is not entitled to any special effort to enable him to rightly improve his mind for the noble pursuit which he has chosen ? I will not for a moment believe, that this subject will be permitted to sleep, after the farmer shall have examined it at his fireside, with that attentive consideration which he gives to the matters that ordinarily are the subjects of examination. The result of this, if carried out, will be a better race of farmers—more perfect management of the farm—better husbandry and better crops; in short, economy in farming will be produced—diminished expenditures and increased returns.

Much might be accomplished towards attaining the object suggested, *economy*, if the farmer should become as systematic in his accounts with his farm as he is with individuals. I am pleased to learn that many of our farmers are adopting this system in their operations. Not long since I was permitted to look at a farmer's account for the year—and I found a statement, with all the necessary facts to substantiate it, of the expense of all his crops—that is, what each had cost him per bushel. Thus, wheat 38 cents, oats 13, barley 29, beans 37, &c., &c. Now who cannot see, that this farmer can at once determine whether the course he is pursuing is the one best for his interest, or whether a change is necessary?—and if so, he knows where to make it. I would press this matter home to every farmer. Be systematic in all your operations, and thus you will be enabled to decide at once which course is best for you to pursue.

I would urge upon every farmer who makes the production of grain his leading object, to pay particular attention to the cleaning of his lands. Let this be attended to with the most scrupulous care; give to your grain all the nutrition the land can yield, and let not the weeds interfere with its full development, and you will be satisfied with the result. This is a matter far too little attended to in this country—and yet upon it depends the complete success of the farmer in raising grain. He may manure thoroughly, his seed may be good, his land thoroughly pulverised, yet if he neglects his crops, and suffers the weeds and grass to usurp a portion of the nutriment from the soil, a diminished crop will convince the farmer, that a wise economy has not attended his operations.

While improvements (so called) are often made at an expense that far outweighs the return of the crops, the farmer hearing of them is led to say, it is useless to make the attempt, for it will be ruinous; but if he will for a moment reflect, that this is *not improvement* which leads to such ruinous results, but improvement means *increased products* at *diminished expenditure* in cultivating the soil, by the aids of improved implements and machinery, and a careful husbanding of the manure of the farm. And is not this desirable, is it not attainable ? I greatly mistake, if the farmer will carefully follow out the suggestions herein made, with such other aids as experience has shown to be useful, he cannot fail of success, and in the end will learn the true secret of success, in the *economy of the farm.*

Cure for Founder.—"The seeds of sun-flowers," says a correspondent of the Zanesville Gazette, "are one of the best remedies known for the cure of founder in horses. Immediately on discovering that your horse is foundered, mix about a pint of the whole seed in his feed, and it will effect a perfect cure."—The seed should be given as soon as it is discovered that the horse is foundered.

BONE-MEAL FOR COWS.

[From the Massachusetts Plowman.]

Mr. Editor—Sir: Being a reader of your excellent paper, I have often seen questions from your correspondents about various subjects connected with agriculture, which I have seen answered satisfactorily. My father has a valuable cow, which gives an abundant supply of rich milk, and which is, in all respects, a good cow. I noticed the past summer, in driving it to and from pasture, that it would eat bones that she found by the road-side, and also, this winter, I have often found her eating them, and have prevented it, when possible. It does not seem that it is the want of salt—for she has had most of the swill from the house, and also salt, occasionally. If you can tell me the cause, and if hurtful, the preventive, I shall be very much gratified.

Yours, truly, N. P. B.

Hopkinton, March 19, 1849.

It is supposed by many that cows are fond of bones because they require something of that nature to restore what they lose when they give milk. Milk is the article that nature has provided for young animals whose bones are forming and growing; and it is found to be the best article they can have.

Now a cow that has come to maturity can afford to yield up some of her milk without injury as her bones are already formed. Yet she may yield such an abundance of milk as to injure her own carcass. We find some cows running to milk, as the phrase is, and becoming poor in flesh while they are yielding large quantities. Such cows are more liable to suffer from disease or derangement of the system than cows that give but an ordinary quantity and incline to flesh. The garget in particular, which always affects the udder, is always found to be most troublesome in cows that yield large quantities of milk.

This is the theory—that great milkers injure their bones by parting with too much that is needed to supply the natural waste of bone. Now, as to the remedy—*bone meal* has been used on the supposition that it might supply the waste occasioned by the great yield of milk. And a number of farmers in Essex county who have tried it have reported to us that they found the remedy effectual. Bone meal is now kept in Agricultural warehouses for the purpose of restoring cows that hanker after bones.

No harm will result from eating any bones that are found in the street provided they are well ground by the cow before she attempts to swallow them. Any bones may be pounded fine with a sledge hammer and given to cows. Or the meal may be obtained in this city.—*Editor Plowman.*

Remarks:—The above relates to questions of great practical and theoretical importance. The early readers of this journal need not be informed how often and earnestly we have urged upon the attention of the Agricultural community, the value of *bone earth* in all soils, whether used as pastures, meadows, or grain lands. The amount of phosphates which is annually wasted in the dung, urine and milk of animals in this country, is infinitely larger than is generally supposed. The elements of bones are not abundant in ordinary earths; hence their loss, no matter in what shape, is a serious calamity. In the bread, meat, milk, potatoes and other food consumed by the human family, there is a prodigious waste of valuable phosphates and sulphates of lime and magnesia, under the present customs of society, without any fair excuse whatever. As the country becomes older and its cities and villages more populous, the necessity for saving night soil increases, whilst the quantity extracted from cultivated lands and lost is equally augmented. Pursue this system of robbing the soil of the elements of bones one or two generations longer, and not only cows but children will have to eat bones to satisfy the demands of nature to repair the distorted, enfeebled skeletons within them. When a child, a calf, a colt or a lamb can organise its frame-work out of iron, then it will do to waste the phosphate of lime in the excretions of animals.—**Ed. Gen. Farmer.**

THE PLOW—ITS HISTORY AND IMPROVEMENTS.

BY HORACE L. EMERY.

Friend Moore:—I send you herewith brief descriptions of some of the modern plows.

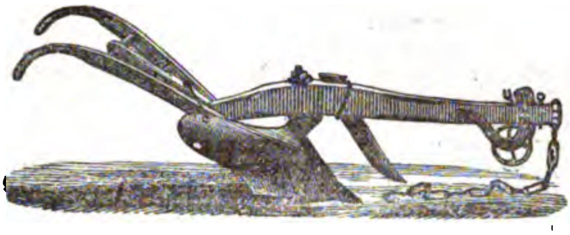
Among the various forms and kinds, I would first describe that called the "*Swivel Plow,*" or by some the "*Side Hill Plow,*" (Figure 1.) This is so constructed that the mold board is suspended upon pivots, by which arrangement the mold board can instantly be changed to the right or left side of the beam—thereby, forming a perfect plow at the pleasure of the operator, which will turn furrows either way.

This is an important invention, and the best now in use for the particular purpose for which it was originally designed, viz: for turning furrows down the sides of hills—thereby requiring less team—doing the work much better, and what is most important, this method of plowing prevents all washing of side-hills by heavy rains, &c. This plow has recently been so much improved in form as to work equally well on level lands, as the furrows may all be turned one way, avoiding all dead furrows and ridges when desired. It is also useful in working roads, plowing from fences, &c. The credit of this *invention* belongs to J. Rich, and the plow has always been known as *Rich's Swivel Plow.* The accompanying cut is a correct representation of the plow.

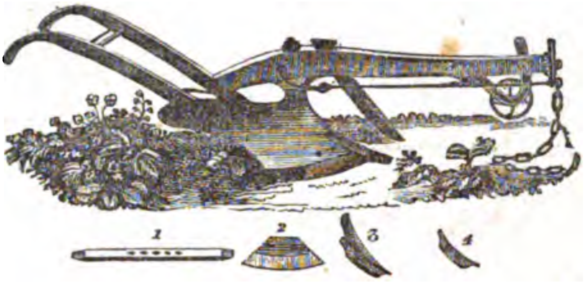
Another plow for the same purpose is in use to a considerable extent in this State, which is formed with a right and left mold-board combined, and the beam so attached to the irons as to be readily made to vibrate from side to side—the main bolt through the beam forming the pivot—when the hind end is moved quite to one side, one mold-board being nearly in a plane with the furrow, it forms the land-side, while the other mold-board turns the furrow slice, and *vice versa.* This answers a good purpose. It is however a better plow for ridging and ditching, as it can be made to turn two furrows, one each way, simply by confining the hind end of the beam, midway between the mold-boards. This was invented and patented by Barnaby & Mooers, of Ithaca, N. Y.

Another kind of plow for ordinary kinds of work is extensively used and well approved by farmers in the interior of the State, which is known as the "*Wheel Plow.*" This derives its name from the fact of its being formed with a revolving landside, thereby producing a rolling, instead of a sliding friction. In other respects the plow differs little from other kinds in general use. In theory, by the use of the revolving wheel landside, a saving of power is obtained—and in fact it is the case, when and where the bottom of the furrow is compact and hard enough to sustain the weight and pressure of the plow upon the wheel, without being indented; but whenever the earth is mellow, and constantly giving way to the pressure of the wheel, this saving of power is more than counterbalanced by the increased resistance to be overcome. The more complicated construction, and the constant wearing of the axis and revolving parts, has retarded its very general introduction.—The plow, however, is thought highly of by many of the best farmers in the central part of the State. It is the invention of T. D. Burrall, of Geneva.

Another kind now in use to a great extent in some sections of the country, is known as the "*Self Sharpening Plow,*" (fig. 2.) These are so constructed that the *point* and *wing*, and front or top of share, are three separate pieces—each piece so formed as to be capable of being reversed several times as they wear away; these have been found to be cheaply kept in order, and when the land is free, have been sufficiently strong, notwithstanding their complex construction. They have recently been improved, and wrought iron substituted in place of cast metal, with steel points and edges—thus making them equally strong as any other plows—and by being newly laid by any ordinary blacksmith, once in a year or two, the plow can be worn out without being dependent upon distant furnaces for repairs. The various improvements in the Self-Sharpening Plow have been made by several different persons, at different times during the past ten years: but the most important has been that of substituting wrought iron and steel in place of cast metal for the wearing and exposed parts, which last belongs to, and was patented by, **Ruggles, Nourse, & Mason.**

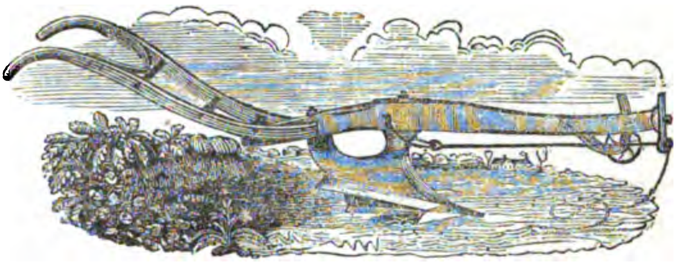


(Fig. 1.) *Swivel, or Side-Hill Plow.*



(Fig. 2.) *Self-Sharpening Plow.*

With the *Sub-Soil Plow* I will close this communication. When the advantages to be derived from the use of the Sub-Soil Plow are known, very few good farmers will think of cultivating their farms without one. On many farms which have become impoverished by surface culture, and become unprofitable, the use of this plow will renew the soil, and to a great extent produce the effect of manures, &c., by restoring to them their original fertility. Were this the only advantage to be derived, its use should be no longer delayed; but when it serves as a drainer to receive the surface and surplus water, and also to open the soil to a greater depth to receive the roots of plants for food and moisture, and to admit a rapid passage of moisture upward from a greater depth—thereby avoiding drouths in dry times and extreme wet in early spring and heavy rains—its utility can no longer be questioned. Since their introduction to this country from England and Scotland, they have been much simplified—retaining at the same time the original effect in operation of the most approved imported plows. They are afforded here at less than one-fourth the original cost.



(Fig. 3.) *Sub-Soil Plow.*

The above cut (fig. 3) shows the plow, which is so constructed as to follow in the furrow of an ordinary plow, and break and pulverize the soil to any depth required, without bringing any of the sub-soil to the surface, but leaving it where it is; and the next round of the common plow covers this sub-soil so loosened, and so on through the field. It is also found of great benefit to grass lands (where the water stands late,) by plowing through the same once in two to four feet, in the direction of the run of the water; this, by forming small blind drains, carries off the surface water much earlier; and if this is done in the fall, it prevents the injurious action of the frosts to a great extent, the land becomes settled earlier, and a heavier and larger growth of hay is obtained. In view of these evident advantages, no farmer should do without a good Sub-Soil Plow.

It was originally my intention to have described several other kinds of plows in use, as the *Eagle Plow*, the *Diamond Plow*, the *Peekskill Plow*, the *Center Draft Plow*, &c., but my time will not now permit, and beside the public are already familiar with them. The subject of the draft of plows I will take up, and perhaps send you a communication upon it. Probably no one thing about the plow is less correctly understood, not only by the farmer but by the plow maker, and also the committees selected to judge and test the merits and demerits of the different kinds. *Albany, N. Y., April,* 1849.

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Messrs. Editors:—Will you or some of your readers give us, through the Farmer a description of a wind mill of about one man power—or a power sufficient to churn, wash, turn grindstone, pump water for stock, &c.? One that will be simple in its construction, cheap and durable, and that will preserve a uniformity of motion in our Western New York breezes as nearly as possible. If it does not oblige thousands of your readers, it will your friend in **Van Buren.**

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The industrious are seldom criminal, but the most of those who yield to guilty enticements, may trace their lapse from rectitude to habits of idleness.

THE PRINCIPLES OF BREEDING.

BY S. P. CHAPMAN.

The first great axiom laid down by nearly all writers on this subject is that "like produces like." This indisputable law of nature is seen in every thing both animate and inanimate that has the power of reproduction throughout the entire universe. But while this fact is universally acknowledged it is also equally well known that the union of two different substances often produces something differing very much from either. This law governs the animal as well as the vegetable and mineral kingdoms. By the union of two animals the produce often differs in form, color and appearance from either—sometimes being superior and at others inferior, according as the skill and judgment exercised in their selection has been wisely applied or the reverse.

To breed from two animals so that the produce shall be superior to either requires no small amount of judgment and experience. But it is evident this has been accomplished, else we should have had no improvement. It is very easy to *improve* so long as we can obtain a sire *superior* to the other portions of our herd; but when we have raised our entire stock equal to the best animals we now possess, must we then cease our exertions; or are there certain grand principles which, if correctly carried out, will enable us to continue that vast improvement which has already effected such great changes? We for one are far from supposing that any of our domestic animals have as yet reached their highest state toward perfection; on the contrary we believe they have but just begun to advance in improvement. Who that lived a century since would have supposed that from the animals then in existence we could have produced our present excellent improved stock?—and who can tell what our best breeds may become one hundred years hence?

The first thing an individual should do in order to become a successful breeder is to establish in his own mind what he deems to be perfection, as regards the animals he is breeding; for without some definite object in view it is evident but little can be accomplished. In order that he may entertain correct views it will be necessary for him to give the subject much study and observation. He should then select for the foundation of his herd those animals that approach nearest this standard of perfection. It is not probable that he can find animals that will entirely suit him. They will all have some little defects. How is he to eradicate these defects and preserve their excellencies. It can only be accomplished by long and steady perseverence and great care in the selection of his breeding stock.

If, for instance, we have a cow possessing many valuable qualities but deficient in some important point it is not enough to insure improvement in the produce that we should breed her to the male possessing this point in perfection. In the first place to calculate on any thing like success we must ascertain that the male *inherits* this excellency. We must then see that he has no defects which he will be likely to stamp upon the produce. He will, without doubt, be deficient somewhere. Is the cow perfect where he is deficient, and does she *inherit* this perfection? If so, we may calculate we have the right materials for improvement. Every defect in the male should be counterbalanced by a corresponding *hereditary* excellency in the female and *visa versa*. One great reason why some individuals are not more successful as breeders is, they do not study the animals they breed from. They possess perhaps a very good sire, and their cows are better than an average. But after several years breeding they find their stock have deterioated instead of improving. The reason of this is that while they have retained in some degree their former excellencies they have been breeding animals together both of which have been deficient in some one and the same important points, and they have been in fact *establishing defects*.

This is one of the great objections to the "in and in" system of breeding. The animals being descended from the same family are likely to possess the same defects, and by a union of like defects, it is evident we can never create an excellency. On the other hand by bringing together animals of different families, we have a greater chance to obtain those whose defects and excellencies will in a great measure counteract each other. If it were possible to obtain *perfect* animals and have them descended from *perfect* ancestors for years back we think there would be no danger of breeding "in" for generations to come, and we presume all the produce would be perfect. We do not, however, know of a *perfect* cow, or bull, and any individual possessing both might amass an ample fortune.

We would here say a few words as regards the raising of animals in connexion with their breeding, and that is, that they should be *well fed*. It matters not how good animals we may possess, we can in a few years ruin them by neglect, and almost starvation. All young animals should be kept just as well as they possibly can be without becoming *fat*. We have known young animals ruined by over feeding, and we have known of many more spoiled by starvation. The safe and most judicious course seems to be to adopt the medium as we have before stated. The young animal is then more healthy, will attain a greater size at maturity, and will have a firm and more perfect appearance. *Clockville, Madison Co., April*, 1849.

SELECTING INDIAN CORN FOR SEED.

BY CALVIN E. HILDRETH.

MESSRS. EDITORS:—I believe there can be an improvement made upon Indian Corn, by a proper selection of seed. About ten years ago it was a rare chance to find an ear of corn with fifty kernels in one row of the eight rowed variety. The same variety I plant now, and can find ears that will have fifty-five and sixty kernels in one row.

The way I selected my seed was this: I took the longest ears that were not filled out at the top end, believing that an ear of corn that was filled out over the end would grow no longer; and selected from year to year those ears that were not filled out, and small at the butt. I have ears that have fifty-six or eight kernels in a row, and the cob one inch in diameter at the butt and not filled over the end. The length of the longest ears is from ten to twelve inches. I have from fifty to sixty bushels to the acre in this climate. No doubt a great improvement might be made in four or five years, by close application, on a small scale.

If you think the above will be of any use to your readers, you may publish it. *Raymondville, St. Lawrence Co., N. Y.*, 1849.

THE above suggestion is in season, and worthy of particular attention.

HARROWING WHEAT IN SPRING.

BY MYRON ADAMS.

Messrs. Editors:—In none of the improvements in agriculture do I find farmers so *slow to believe* as in harrowing wheat after the ground has settled in the spring. Some ten or fifteen years ago much was said on this subject in the Genesee Farmer, showing the results of experiments and explaining the reasons why it should operate beneficially upon the crop.

Farmers know that a hard crust forms upon ground exposed to the frosts and drying winds of March and April, and that this crust greatly retards vegetation. But the great objection is, it will pull up all the wheat to harrow it. Having practiced harrowing my wheat every spring for the last eight or ten years, and uniformly with good effect, I feel disposed to recommend the practice to my brother farmers. Of late years I have been in the habit of plowing in my wheat at the time of seeding with a gang plow, leaving it in the furrow. In the spring after the ground has become dry, the last of April or early in May, I harrow lengthwise of the furrows, then crosswise, loosening up the ground thoroughly. I should like to do this just before a rain. If the land is to be seeded with clover, I sow on the seed and harrow it in. This I think far more safe than sowing early and trusting to the heavings of the frosts and the wash of rains to cover it. Early sown clover is often killed by the drouths so common in April.

I have been amused at the earnestness with which some of my neighbors would remonstrate with me for harrowing my wheat. "Such a fine piece of wheat" say they, "to be spoiled in that manner; he ought to be sent to the mad house."

And afterwards, when the crop showed for itself it was not ruined, "Oh, it was such a good piece of land it will produce a good crop in spite of your experiments." A field of wheat looks bad while under the process of harrowing, as it is prostrated and partly covered with earth; but after a shower it starts up fresh and vigorous like a field of corn refreshed by a shower after being hoed. I have often examined as to the amount pulled up, and do not believe it will average a bushel upon ten acres. Farmers try it: and be not frightened by the appearance. I never yet heard of a field injured by it.

East Bloomfield, N. Y., April, 1849.

SALTING STOCK.

BY J. H. BEECH, M. D.

Messrs. Editors:—A correspondent of the Farmer some time ago offered some speculations about salting stock—questioning the utility of the practice, and asking for actual experiment. Believing the question important, and that sufficient time has elapsed for those better qualified to have given details of experiments, if they had previously made any in that line, or to have given an answer on scientific physiological principles, I have no apology for writing, provided I succeed in making my article worthy your publication.

The animal system has no power to create any of the elements of flesh, organised tissue, or salutary secretions. But the organs of nutrition and assimilation have wonderful power to modify the chemical constituents of the animal body, into a part of that body, when they are supplied. Healthy, perfect animals cannot be raised, or kept unless all the various chemical constiuents of bone, meat, fat, &c., are furnished in food, or drink, or in the atmosphere they breathe. Combinations of gluten, starch, oil, &c., found in the food of herbiverous animals, supply much of the material for organized tissue, and fat; and abundance of carbon for the purposes of respiration. But a variety of mineral substances, are equally necessary, to wit: phosporus for the formation of nervous tissue, bones, white and yolk of eggs, and milk. It is furnished in the grasses and seeds of plants. Sulphur exists in flesh, eggs and milk. It is found in most spring and river water, and in some plants with their azotized compounds. Lime is a well known ingredient in the animal structure. It is equally abundant in the vegetable kingdom, and in all hard water. Iron is a "*sine qua non*" in red blood, animal flesh, yolk of eggs, and milk. It is supplied in some water and in many vegetables.

Common salt is no less important in the animal economy. It is contained in flesh, in the egg, in milk, and other fluids. It is a combination of muriatic acid and soda. The first named, is essential to the gastric juice, making it a ready solvent of many substances which would otherwise be useless to the purpose of assimilation. Soda is necessary in the production of bile. Common salt is scarcely found in plants, except such as grow in salt marshes, *salt licks*, or sea water. This deficiency must be supplied. Instinct and appetite impel wild animals to seek such marshes, and licks, where they choose the raw material in the most concentrated form they can find it. Domestication prevents animals from obeying this desire, and renders it our duty and interest to mingle it with their food or treat them regularly with this luxury, as their actions prove they esteem it.

By the advice of some old farmers I have fed my pigs with salt freely and regularly, especially while fattening, for four or five years; and am satisfied that it is of great service in giving permanency to the appetite and solidity to the flesh,—besides being well paid for expense and trouble in grateful grunts, and smacking chops. *Gaines, N. Y.*, 1849.

FEEDING BARLEY TO PIGS AND EWES.

I saw in the Farmer, some time since, a recommendation for feeding ewes that had lambs, barley meal. I wish to ask if any of the readers of the Farmer have tried the experiment; and if they have, what has been the result? It has a very bad effect on sows that have pigs—drying up their milk and eventually starving the pigs. Likewise, barley straw and barley beards will dry up milch cows.

In regard to sows and pigs, one circumstance has happened under my observation. A farmer had a fine sow which had a nice litter of pigs, and he thought he would take extra trouble and have nice hogs. He had some barley ground and he gave the meal to the sow, and if he had not left off feeding it as he did he would have lost all. He made out to save two or three out of the litter by feeding other slops.

Yours, &c., Arista.

Will some of our correspondents respond to the above inquiries?—[Ed.

Vermont Sugar.—The Green Mountain Freeman says that the "amount of maple sugar made annually in the State of Vermont, according to the best estimates we can obtain, is about five millions of pounds."

CULTURE OF FIELD BEANS.

Many of our farmers would find it advantageous to cultivate a few acres of field beans, and as the season for planting the crop is approaching we direct attention to the subject. A friend states that he raised a very profitable crop the past year — and, though his land is well adapted to wheat, he thinks beans pay quite as well, on a small scale. In most localities the crop brings a fair price—from $1 to $2 per bushel; rarely if ever less than the former.

The crop thrives well on a quick dry soil, finely pulverized; but if inclined to be wet, the land should be ridged. The seed may be put in any time this month, after the danger of frost is past. Do not plant in a cold wet time, as the seed will be more liable to rot; the ground ought to be well warmed by the sun, before planting. Bush beans are the only ones used for field planting, and of these there are several kinds. Among others the long garden beans, white, red or mottled, are known as great bearers, of good quality, and mature early.

Relative to the culture and produce of this crop, Judge Buel says: — "Beans may be cultivated in drills or in hills. They are a valuable crop, and with good care are as profitable as a wheat crop. They leave the soil in good tilth. I cultivated beans the last year in three different ways, viz., in hills, in drills, and sowed broadcast. I need not describe the first, which is a well known process. I had an acre in drills, which was the best crop I ever saw. My management was this: On the acre of light ground, where the clover had been frozen out the preceding winter, I spread eight loads of long manure, and immediately plowed and harrowed the ground. Drills or furrows were then made with a light plow, at the distance of two and a half feet, and the beans thrown along the furrows about the 25th of May, by the hand, at the rate of at least a bushel on the acre. I then gauged a double mold-board plow, which was passed once between the rows, and was followed by a light, one-horse roller, which flattened the ridges. The crop was twice cleaned of weeds by the hoe, but not earthed. The product was more than forty-eight bushels by actual measurement."

* * *

KEEP THE SWINISH MULTITUDE AT HOME.

Mr. Moore:—The suggestion of your correspondent H. Y. that communications should be appropriate for the season, I think a very good one, and would suggest to your readers, as I think this is the proper time, that if they wish to promote a public good—to turn money into their own pockets—to cultivate a friendly relation with their neighbors—to contribute their mite to the promotion of a correct rural taste—to abate a very great nuisance—and to appear at the bar of judgment with a clear conscience, and not meet any of their neighbors there as witnesses against them: That this spring, just before they turn their swine into the highway without any wires in their noses, they put some in and turn them into the pasture where they can find them at feeding time; and thus save the poor creatures the trouble of carrying sore ears, and going on three legs, occasioned by the help of their neighbor's boy and dog in an ejectment from his fields. Yes, we say, commence the spring of 1849 anew; turn the pigs into the pasture and save law suits, and save the green grass by the side of the road which adds so much to the beauty of a farming district, and keeps out noxious weeds,—for we all know that where the turf is rooted off, the seeds of weeds will lodge and grow.

If we were to judge from appearances, we should think that, in some neighborhoods, swine were the only highway laborers, and that they labored most assiduously too; not however, to make the passage over the road smooth and agreeable, or to make the prospect interesting. It is almost sickening, certainly revolting, to see how some roads are turned up by half fed swine. Half fed, I say, for full fed would be at home at rest. What right has my neighbor to turn his pigs into the road, and compel me to watch them, and to save my crops, fence against *hogs* of the smallest dimensions? Would he not be liable for trespass if his pigs come and root up the grass plat in the road before my door as much as if he should take a hoe and dig it up himself? What the law is I do not know; but if our country laws are all right our *country practices* are not. But a man that will not do right only as the law compels him, I like to have said, ought to have a wire in his nose and be turned out with his pigs, for they all resemble each other in hogishness. If farmers must pasture the highway, sheep are much less objectionable, if they will not get over fence. They do not deface the road, are not so liable to creep through fences, and are more timid and more easily frightened from mischief. I would by no means, however, recommend turning any animal into the highway, for they will, in spite of all the good wishes of their owner, molest his neighbors.

In looking over the above I find I have directed my suggestions to your readers. I beg their pardon. It is not the readers of "The Genesee Farmer" that are in the fault. It is generally those who will not read—those who "know enough" without reading the Farmer. But I would suggest to them that they use their influence to get their neighbors to abandon this nefarious practice of *swining* the road; or to get them to take, and *read* the Farmer, and if there is any pride or spirit of emulation in them they will abandon it voluntarily.

Mr. Editor you are at liberty to do with this just what you please. You can publish any, all, or none of it, and it will be all the same with your friend in

Van Buren.

Onondaga Co., N. Y., March, 1849.

* * *

Carrots.—On 270 square feet of ground I raised 10½ bushels of carrots, weighing 47⅛ lbs. to the bu. —making 494 9-16 lbs. At the same rate per acre it would amount to 79,833⅛ lbs., nearly 40 tons — some below the amount stated in last number, as the writer supposed might be raised on an acre. The largest carrot weighed 4¾ lbs. They were the first carrots I had ever raised, and I took pains with them to satisfy myself as to the profit, and the amount that could be raised on an acre. The soil was clay; it was well manured; seed sown in drills one foot apart, and the plants were thinned so as stand about four inches apart.

While preparing the ground an old gentleman remarked that I would not harvest two bushels from it; but in this case the "debts were paid" to the soil, as suggested in your August number. Let S. P. C.'s advice be adopted, and bountiful crops will be our reward. J. I. S.—*Alexander, N. Y., April, 1849.*

PLASTER.—PLOWING UNDER CLOVER.

Messrs. Editors:—It is well known that the farmers in this part of the State use plaster quite extensively, and value it very highly. The effect of plaster upon clover, corn, potatoes, &c., on gravelly soil, considering the amount applied, is truly wonderful and surprising. The increase in the yield of these and other crops, by the application of a bushel of plaster per acre, is oftentimes doubled, and even trebled. Notwithstanding the great and extraordinary increase of crops it produces, many farmers are skeptical as to the utility or economy of applying plaster to the soil, believing it will have the effect in the end of destroying and rendering utterly worthless their farms. And my object in penning these lines is to inquire your opinion upon this point—Whether plaster does injure the soil? and if so, does the injury result from the application of plaster to the soil?—or does it exhaust the soil merely from the great increase it produces in crops?

There is another inquiry upon which I should like your opinion. Is it for the interest of farmers who own small farms, and who wish to keep up, and enhance their productiveness by plowing under clover for sowing winter grain, to plow it twice—once just before the clover is fit for mowing, and again before sowing, or mow it once and then plow in the second crop just before sowing? If you will answer these inquiries, it will be satisfactory and conclusive to all concerned. A Subscriber.—*Aurora, N. Y.*, 1849.

Remarks.—That the use of plaster has a tendency to deteriorate and exhaust the soil, is a most ridiculous assumption. Its action is to fix and retain the ammonia of the air, rains, and snows—which in itself is an important assimilating agent of all plants. Gypsum is composed of sulphuric acid and lime, and ammonia of nitrogen, (which composes four-fifths of the atmosphere, and combined with plaster is nitre or salt petre,) and hydrogen, one of the constituents of water. In the mutual action and decomposition of gypsum and ammonia, results are produced and agents developed, important to the process of vegetation, and in which the value of plaster is supposed to reside. But if the farmer wholly depends upon the application of plaster to keep up the fertility of his land, without rotation, rest, and the requisite green or stable manure, his lands will run down and become sterile and barren.

For a clean clover and timothy ley, devoid of foul grasses, it is our opinion that once plowing on or before the first of September, turning under about five inches in depth a good second crop of clover, is the best and cheapest method that ever wheat was cultivated—while a saving of one crop of hay and two plowings is made. It will not show as luxuriant in the fall as the regular summer fallowing, but when fermentation of the buried vegetable fibre commences in the spring, it brings up with a rush. *

To Drive away Rats.—Mr. Charles Pierce, of Milton, pounded up potash and strewed it around their holes and rubbed some on the sides of the boards, and under parts where they came through. The next night he heard squeaking among them, which he supposed was from the caustic nature of the potash which got among their hair and on their bare feet. They disappeared, and he has not been troubled with them since that time, which was nearly a year ago.—*Boston Cultivator.*

BLACK LEG AMONG CATTLE.

Messrs. Editors:—We have a disease among our cattle in this vicinity, which always proves fatal. We can neither tell the cause of it, nor do any thing which will give relief. It is called by some the Murrain, and by others the Black Leg. It attacks yearlings (between the months of January and July, generally,) in the legs, hips, or shoulder, and is from six to twenty-four hours doing its deed. The parts affected become black or dark colored; the flesh and blood seem to be mixed as though the parts had been severely bruised. I think that one-eighth of our yearlings in this vicinity are lost by this disease. I have seen nothing in the Genesee Farmer, or in any other work which gives much satisfaction on the subject. Perhaps the disease is not a universal one. But if you will give us some information, or enlist the investigations of some of your correspondents, its beneficial results will be gladly received by one, and I trust by many of your patrons. John Watson.—*East Java, N. Y.*, 1849.

Remarks.—This disease is known as the black leg, quarter evil, black quarter, and blood striking; and our correspondent describes it correctly. It is an endemic and very local. Its cause is very obscure, and not very rationally accounted for. It is mostly confined to young cattle, with occasional exceptions, and to those confined to low marshes and woodlands. Very high feed, after getting lean in flesh, producing a redundency of blood and a tendency to inflammation, are supposed to be the predisposing causes. A mephitic atmosphere or poisonous plants may also be an accelerating cause. The first symptoms are a dry muzzle, extension of the head, heaving of the flanks, and every symptom of fever, with low moans, and staggering of the limbs. Bleed freely and only on the first symptoms, and physic immediately; if it will not operate, give injections. Feed lightly with scalded bran or shorts. Foment the parts and put in setons. The great object is to reduce the system, and allay fever and inflammation. Cattle poor in flesh and milch cows are said to be almost exempt. It is contagious, and cattle affected should be removed from contact with the healthy.—Ed.

The Art of Health.—Walking is the best possible exercise. Habituate yourself to walk very far. The Europeans value themselves on having subdued the horse to the use of man; but I doubt whether we have not lost more than we have gained by this animal—for no one thing has caused such degeneracy of the human body. An Indian goes on foot nearly as far in a day as an enfeebled white does on his horse, and will tire the best horses. A little walk of half an hour in the morning, when you first rise, is advisable. It shakes off sleep, and produces other good effects in the animal economy.—*Jefferson's Memoirs.*

An Ohio Cheese in London.—The London papers mention the arrival there of an enormous cheese. The milk of seven hundred cows was used in making it, and it weighs 1474 pounds. It is thirteen feet in circumference, four feet and a quarter in diameter, and eighteen inches in thickness. It was offered for and obtained a prize at the Fair of the American Institute in New York city.

The best way to get help is to help yourself.

LETTER FROM THE SANDWICH ISLANDS.

HONOLULU HOUSE, Oct. 25, 1848.

D. D. T. MOORE, Esq.—*Dear Sir*: I have regularly received the numbers of your paper since you were kind enough to put my name on your list, more than a year since. Be assured, though the climate and soil of the Sandwich Islands is so different from your latitude, as to render inapplicable many of the valuable suggestions it contains, I find much in it that, by analogy, can be made useful to the horticulturist and agriculturist of this region. As yet, I have not, of course, been enabled to experiment in any of the departments of cultivating the soil, but I hope within a few years to demonstrate that a better climate or a superior soil does not exist than can be found on the Hawaiian group for the tillers of the earth.

As yet but little, comparatively nothing, has been done to develope the resources of these Islands. Most persons who have become residents here are either merchants, seeking their fortunes in commercial operations—missionaries, confined by their obligations to the Board, to other than agricultural pursuits—discharged sailors, who are ignorant and inefficient, except upon the ocean—and now and then an individual of extravagant habits and crude notions of the means necessary to secure efficient labor and render it productive. The latter class have generally been the foreign agriculturists, and their unsuccessful efforts have tended much to discourage others, fitted by their education and habits to make the soil productive. The native population, just emerging from an uncivilized and degraded state, it cannot be expected would, as yet, be able to comprehend or execute the plans of an intelligent farmer. Such being the facts, it is not surprising that the rich resources of our soil and climate are as yet undeveloped. It is to be hoped that the recent discovery of mineral wealth in California will attract a large, intelligent and efficient population from the United States and the Eastern Continent, and that the market that will be thereby afforded for the natural products of this tropical climate, will induce men of capital, experience and proper taste, to emigrate here to supply their wants. I am clearly of the opinion that more money is to be made and more happiness secured by supplying the wants of the gold-hunters, than can, or ever will be realized by them, should their golden dreams all be realized. And I hope and trust the day is not far distant when, as a consequence of the present mania for the gold-dust of California, these Islands shall be rendered the garden of the Pacific.

I am satisfied from the expensive and indifferent experiments that have already been made, that coffee of the best quality, equal to Mocha; sugar unsurpassed in the world; oranges, and all of the tropical fruits, may be abundantly produced, and at a cost that will compete with the Mexican and South American provinces. Specimens of most of these I have seen, and others of more experience assure me there can be no question but they all may be produced at the market price, with profit. But it can not be done without intelligent, industrious and prudent men to manage and direct the labor of the native population.—Could we be blessed with one hundred men, of the experience and ability of the farmers of New York, who would seek their fortunes in agricultural and horticultural pursuits upon these Islands, the day would be near at hand when they would be the West Indies to that portion of the United States west of the Rocky mountains.

As I can say but little concerning the present state of agriculture here, I make these general remarks hoping they may direct attention to the general facts they contain.

The simple wants of the natives, which are so easily supplied, are not calculated to stimulate them to continued and assiduous exertion; but the example of the few foreigners who have located in their midst already has elevated their tastes and increased their desire for the comforts and luxuries of civilized society; and there are many striking examples of thrift and business habits, which warrant the belief that the future progress of this nation is not to be less rapid in the improvement of its business habits, than it has been in intellectual and moral culture. All that is needed now to make the natives emulous in the cultivation of the soil, is the example of foreigners who are ready and willing to secure their comforts and pleasures by the sweat of the brow.

I am satisfied that many of the fruits and products of your climate may be successfully cultivated here. Peaches have already been grown, but as they were seedlings, and proved not to be of the best qualities, I have heard it repeatedly said they were not worth cultivation. You see, therefore, how important it is that the simplest truths in horticultural science should be understood. Patience and successive attempts to grow peaches from stones (as yet the only practicable method here,) I have no doubt would finally result in producing desirable varieties, which might then be propagated by scions and buds. But as the first attempt was not satisfactory, little attention is paid to the subject, and we are without a supply of that delicious fruit. So it has been with many other unsuccessful efforts in horticulture—a single unsuccessful experiment has discouraged a second; and as we are generally without the *Genesee Farmer*, or a similar paper to enlighten the community, as I have before suggested, we are greatly in want of men to give a practical illustration of even the commonly acknowledged truths that make up the science of agriculture.

With very little cultivation, abundant supplies of sweet and Irish potatoes, beans, squashes, tomatoes, and all the other common culinary vegetables, are produced; and was the soil simply sufficiently disturbed, without any of the aids of manure, lime, and the many other auxiliaries that are used in America, I have no doubt the quantity would be doubled. The man who is now planting my garden was astonished that I required him to move or stir the soil beyond the narrow limit of a contracted basin, before I permitted him to plant corn to supply my table—so little is known and practiced of the essential requisites of cultivation. A sub-soil plow or the double spading of a garden, would be considered entirely a waste. The portion of the earth that has been cultivated at all, has generally as yet been only disturbed by a Carolina hoe, or an "Oo," as it is called by the natives, which is a clumsy instrument in the shape of a spear; yet, as I have remarked, it produces a rich reward for the labor bestowed. Could the sub-soil be thrown up and manure and lime supplied, (the latter being very essential, as the entire formation of the Islands is of volcanic origin,) I doubt not the products of what are now comparatively barren districts would equal those of the Genesee bottoms adjacent to the lime ridges, and supplied therefrom with a solution of lime. Nature has done all that the most covetous could require, and I hope and trust that man will soon enjoy the rich bounties that are in store to reward his labor.

Gorgeous and beautiful are many of the flowers of our indigenous plants and shrubs, and I should be glad to have some of them cultivated in the hot-houses of Rochester. If you think any of your Floriculturists would pay the cost of sending them by express from Boston or New York, I will send you seeds of some of the most desirable. They very far surpass the natural products of a colder climate.

If this general and hastily written scroll will interest others it is at your service, and I hope at some future day to send you an article better suited for an agricultural paper. Yours, &c.,

A. B. BATES.

FARMER'S LABORATORY.

THE discoveries and improvements of late have added "Modern Agriculture" to the list of the sciences, and erected it into one of the highest dignity. The intelligent and skilful agriculturist possesses, in his farm, a splendid laboratory, furnished with a thousand chemical agents, by the action of which all the results of culture are obtained; and the ancient alchymists are now realized by every scientific farmer; for they have truly discovered the philosopher's stone and derived the true means of converting into gold, the very elements of the earth. By the aid of Geology, Mineralogy, Chemistry, Botany and *Labor*, he has forced the earth, the rocks, minerals, acids and alkalies, to yield their stubborn properties, singly or in combination, in relief of the first wants of mankind. The discoveries of the nature and properties of the constituents of the soils, has taught him the art of adapting the proper growth to their peculiarities, rendering the same land, by the same labor, doubly productive, and the means of resuscitating exhausted lands, making them fertile as virgin soil. The improvement in the construction of implements of husbandry, the invention of a thousand new modes of saving labor, by ingenious machinery, and the wonderful facilities of transportation, have materially lessened the toils and risks of the farmer, and contributed essentially to the success of his pursuits.—*Bement's Jour. of Ag. and Science.*

MILKING COWS.—In your last year's volume, page 55, you have given us ten rules from the "Maine Farmer," to be observed in milking a cow—all of which I highly approve of, excepting one, which is, wetting the cows teat with the first stream of milk. That practice I have strong objections to—first, because it is what our New York dairy women call a *nasty* trick. If you watch such milkers, you will often see them use so much milk that it will drop from the hand into the pail, carrying with it the filth of both the hand and the teat, which forms a composition that many would not relish. Second, the teat being left wet in the cool air is liable to crack. Third, it is an unnecessary practice. A cow can be milked equally as quick, and with the same ease, with a dry teat as with a wet one. Try it. REED BURRITT.—*Burdett, N. Y.*, 1849.

THE consciousness that, in a particular matter, we are doing right, often constitutes more real enjoyment than triumph itself.

CULTURE OF INDIAN CORN—A PREMIUM CROP.

BY JOHN SHELDON.

MESSRS. EDITORS:—The following statement of two acres of corn cultivated by me in the town of Leicester, in 1847, was presented to the Livingston Co. Agricultural Society. The Society awarded its first and second premiums, offered for the best and second best acre of corn raised in the county the year mentioned.

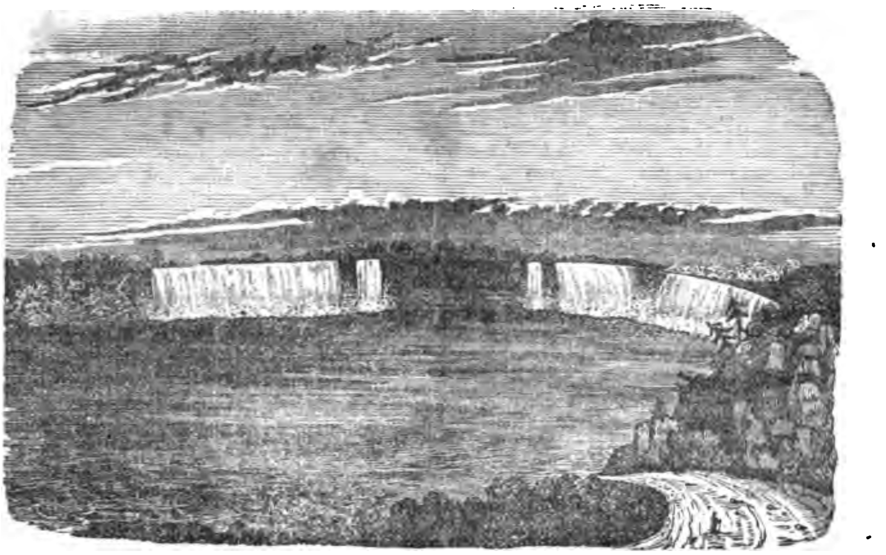
The two acres were selected, separate from each other, from a field of about 5½ acres. The soil alluvial, near the Genesee River—heavily manured 6 or 7 years previous to this crop, but none since. Corn had been grown on the same field for 8 years in succession, previous to this crop—in 1846 about 50 bushels per acre. I commenced plowing it on the 10th of May, and plowed from 9 to 10 inches deep. Harrowed and marked it ready for planting on the 14th—finished planting on the 17th—rows 3 feet apart each way—from 4 to 6 kernels in a hill, and covered about an inch deep. The seed was soaked about 12 hours in salt petre, (immediately before planting,) and rolled in tar and plaster, taking care not to let the sun dry the seed. On the 7th and 8th days of June, I hoed the corn the first time—first passing once each way with a cultivator. On the 28th and 29th of same month, passed through each way with a shovel plow, and hoed second time. Hilled the corn considerable, and thinned it to four stalks in a hill. At husking time, agreeable to my request Col. HOSFORD, one of the Executive Committee, viewed the corn standing in the field and measured the ground.

Now for the result. I husked and measured from the first acre 220¾ baskets or bushels of ears—and from the second acre, 200 baskets. Two bushels of ears, measured in the above manner, made one bushel and 3 pints of shelled corn—and assuming that every two bushels of ears would yield the same quantity, the produce of the two acres, in shelled corn, was as follows: From the first acre 115½ bushels, and from the second 104 bushels and 22 quarts. The corn was all measured with care by myself, in a basket which held a trifle over a bushel when even full, at which height I measured, thinking I could be more accurate than by heaping it. It was measured in a sealed half bushel, by which the basket was also measured.

The variety of corn grown was the 8 rowed white flint. The expense of cultivating the first acre was as follows: Plowing, harrowing and marking, $2—planting and hoeing twice, $3—cultivating and plowing, $1—seed 25 cents—husking (115½ bushels at every 10th, 11½ bushels at 50 cents per bushel,) $5.75—making in all $12. Deduct this from crop (115½ bushels, at 50 cents,) $57.75 and stalks $6, and it leaves net profit $51.75. Second acre, corn $52.33—stalks $5 50; expense of cultivating as above, except husking, $11.48—leaving a net profit of $46.35.

This crop received the most thorough cultivation in every respect. I was particularly careful at each hoeing to stir every part of the surface thoroughly, and to do the plowing so as to turn it *topsy turvey* and pulverize the soil completely in the process. In short I aimed to have every part of it done in a farmer like manner, as it ought to be, and I was well rewarded therefor—which I believe to be the almost invariable result from THOROUGH CULTIVATION.

Moscow, Livingston Co., N. Y., 1849.



VIEW OF NIAGARA FALLS.

Agricultural Geology.

NIAGARA FALLS—ITS PAST, PRESENT AND PROSPECTIVE CONDITION.

BY DR. E. EMMONS.

AMONG the phenomena of waterfalls and river gorges the Cataract of Niagara is justly regarded as holding the first rank, and as standing an index in the path of time, by which the influence of numberless ages upon the surface of our planet may be recorded. Its present, its former and its prospective conditions have engaged the investigation and speculation of many philosophers. The possible consequence of its entire reduction, and the drainage of the upper lakes, have excited the wonder and apprehensions of many. The estimated time of its recession has sprinkled gray hairs among the fresh locks of the young and blooming earth, and alarmed those who would consider her still youthful in years.

But amid all these speculations, Niagara still remains; the thunder of its cataract still reverberates through its deep chasms, and its ocean of waters still rolls on as, unknown to the white man, it rolled a thousand years ago. When we come to the investigation of facts, we find that, except to travelers and the aborigines, Niagara was unknown until within the last fifty years; and that even during this time no accurate observations have been made, no monument erected to determine whether the falls are retrograding or not. The testimony of living witnesses and historical evidence unite in confirming the opinion that the water is wearing away the rock, and that the outline of the falls has changed. From these general observations, it has been estimated that they have receded at the rate of about forty feet in fifty years. Without pretending to question the accuracy of this or any other estimate of the kind, or to establish any rate of retrogression in the falls, we may examine its present, and from numerous facts infer its past condition, and from these we are entitled to draw an inference for the future, though without specifying time.

Both in relation to the former condition and to the future recession of the falls, we may regard the problem as undecided with respect to time. So many disturbing causes are constantly presenting themselves, that, although the great principles may be regarded as established, still it is impossible to calculate accurately the effect of these minor influences. The recession of every mile changes the whole aspect: new elements are brought into operation; the nature of the strata varies; the relative height of certain portions, and the elevation of the whole cascade is altered; and we have had time to observe only one of the phases, and to reason from that to the future, before the condition is changed, and we must take into the account new influences, which the previous changes have called into operation.

The great difference in elevation between Lake Ontario and Lake Erie, and the occurrence of the Cataract of Niagara, form one of the most striking features in the topography of Western New York. The difference in elevation of the upper great lakes is comparatively small, they being nearly in the range of the strike of the strata, while the passage from Lake Erie to Lake Ontario is directly across the line of dip.* Lake Erie is 334 feet above Lake Ontario, and the greater part of the descent from one to the other is overcome by the rapids and falls of the Niagara river in the space of one mile.

Niagara Limestone.—Asilico argillaceous limestone forms the bed of passage from the soft shale below, to the purer limestone above. When freshly exposed it is often of a dark or bluish color, but soon changes to light gray or ashen; and though variable in character, it is a constant accompaniment of the group as far as observed. It forms a good hydraulic cement, where it has been used for that purpose.

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*The geological positions of Lake Superior and Lake Ontario, the highest and the lowest of this chain of lakes, correspond very nearly with each other.

In the eastern part of the district, these beds of passage are succeeded by a dark bluish gray, subcrystalline limestone, of a rough fracture, and separated into thin courses by dark shaly matter. When not too much divided by seams, it forms a durable building material. This again is succeeded by a coarse-grained concretionary mass in irregular layers, exhibiting an appearance as if much disturbed while in a semi-fluid or yielding condition. The concretions often present cavities lined with crystals, or the remains of some fossil body. The upper strata are finer grained, with a resinous lustre; and on weathering the surface is harsh and sandy to the touch; this, however, seems due to the presence of magnesia rather than silex.

Agricultural Characters.—The two members of this group are marked, to a considerable degree, by a difference in the soil. The destruction of the shale has given rise to a clay, which mingling with the more sandy productions of the Medina sandstone on the north, has produced a soil of unequalled fertility; and there is rarely, if ever, to be found a better wheat-growing soil, than the portion overlying this rock. In some places it has a greater amount of argillaceous matter than is desirable, and forms a stiff soil; but where the slope of the surface is sufficient for effectual drainage, it produces no inconvenience.

The soil covering the limestone, particularly where it is a little elevated above the country on the north, is of a loamy character, the argillaceous nature of the mass below having had little influence. In many places however, for a small extent, the surface is clayey, and even extremely so, as if the materials of the lower rock had been deposited upon the higher. An example of this kind occurs a little west of the village of Lockport, where the limestone is covered by a clayey soil, while a mile or two further east, the soil is a light loam. The latter character also prevails in some places near Rochester, and at other points along the outcrop of this limestone. This character of the soil, together with the rapid drainage to which it is subjected, from the fissures or joints in the limestone, as well as the proximity of the rock to the surface, has given rise to a different growth of timber, which every where marks the limestone terrace. While the country on the north and south sustains a forest of maple, beech, elm, ash, and the associated forest trees; that along this limestone is indicated by oak, chestnut, and others of the same nature.—*Natural History of New York.*

THE POTATO DISEASE.

BY R. H. HOYT, M. D.

MESSRS. EDITORS:—I have been solicited, for the past four years to give my views and observations in regard to the causes, &c., of potato rot. It is now nearly twenty years since I first discovered a worm in the potato vine, and which I little thought of then, but which, from mature observation and research, I have no doubt is the cause of the potato rot. I observed, at that time, only an occasional worm, and probably every farmer of experience and observation can recollect for the last twenty years occasionally finding a rotten potato in his fields while digging. There has been notice given of this worm within the last two years by two individuals, but no particular description of it.

I have confined my observations, particularly for the last seven years, to the ravages of this worm; of which, if it were necessary I could obtain abundant evidence. Like the caterpillar tribe it is first generated from an egg, which forms a chrysalis state, lies dormant in that state through the winter, and changes (from the vivifying influence of the sun) to a small white miller, that resembles in every respect that which infests the apple and other fruit trees; although a perfectly distinct species. The miller deposits an egg or eggs, the last of May, or beginning of June, either on the vine, or on the ground near it—mostly I think on the vine—which hatches in from one to three days, depending on the weather. This produces the small worm, probably, described by Mr. BARTHOLOMEW, although I have not discovered it pointed at either end. While in the larva state it is from five to eight lines in length, but attains that of an inch or more. The back is a light brown color, the head darker, belly white, with six legs, three on each side, near the head. I have killed many thousands of them, by cutting off the vine close to the surface of the ground, slitting it open lengthwise, and have universally found this description of worm, and very active, squirming and throwing itself into various attitudes, but never attempting to crawl off. It perforates a hole in the vine from the surface of the ground up to one-half or two-thirds of the top, and I have never seen the hole bigger than a common darning needle. It works its way up and down the vine, making it a complete hollow tube. The situation it remains in during the winter I am unable to say, never having been able to detect it in any condition. I have found it often in weeds growing among potatoes, and in corn stalks planted by the side of them. When it infests the corn stalk it commences at the top before tasseling, and works its way downward, in a measure destroying the stalk. (I would here say that I am greatly indebted to Mr. THOMAS ANDERSON, of Painted Post, Steuben Co., N. Y., for his assistance in discovering this insect in the winged state, and in the deposition of its eggs.) After entering the vine it works its way up and down, eating all the soft spongy part of it down to the very bottom, to the commencement of the first root, not molesting that or the small branches.

And now having given all that I have been able to learn of its ravages upon the vine, its different states, &c., I would say a few words upon the decomposition or rot of the potato. I have examined hundreds of hills in the last six years, and have universally found that, where there was a hollow vine, there was a rotten potato at the termination of it—the small branches of roots having, as universally, sound potatoes. *East Townsend, Huron Co., Ohio,* 1849.

WE are compelled to omit some experiments and speculations embraced in the above article. In fact the subject has become so hackneyed, that we have declined publishing the thousand theories and histories of this disease; but Dr. HOYT is so certain of his discoveries that we relented, although entirely contrary to our views and examinations. In short, it is a subject as inscrutable as the cause of the cholera, and whether it is tuberic, atmospheric or parasitic, is far from settled; and the only preventive to be relied on, is to plant early, on dry high ground, that is not rich, or been recently manured.—ED.

DON'T give the boys the poorest tools, and then complain because they can't keep up with men in planting, hoeing, &c.

Meteorological Observations, &c.

METEOROLOGY—CLIMATOLOGY.

BY L. WETHERELL.

Some account of the variations of temperature upon the surface of the earth, with a statement of some of the causes that produce them.

That department of meteorology denominated climatology, is of great interest to man in every relation of his earthly existence. But none feels a more direct interest in this subject than he whose labors are nothing worth unless aided by the seasonable distribution of light, heat and moisture.

The sun is the source of both light and heat, without whose rays vegetable and animal life would soon cease from this planet. It is a well known fact that these are not equally distributed over the surface of the earth. This is owing to the following causes, viz: the annual motion of the earth round the sun, the diurnal rotation upon its own axis, the inclination of its poles; also, the effect of geographical position, configuration and altitude. In consequence of the earth's annual motion the position of the sun in the heavens apparently changes. The path of the sun thus described is called the *elliptic;* intersecting the celestial equator at an angle of 23° 28′, on the 21st of March and September of every year. On each of these days, at noon, the sun's rays fall perpendicularly upon the earth's surface at every place upon the terrestrial equator, and falling very obliquely at the poles.

Two imaginary circles are drawn parallel to the equator, each 23° 28′ from it; the one north is called *the Tropic of Cancer*, and the one south *the Tropic of Capricorn.* Over that part of the earth's surface embraced between the tropics the heat is distributed with something like equality; that is to say, unless varied by altitude.

Geographers have divided the earth into five zones or belts—the first, or torrid zone, is 3,243 miles in breadth, containing 77,700,000 square miles; second, the two temperate, each about 2,970 miles in breadth, each containing 50,000,000 square miles; and, third, the two frigid, each 1,663 miles wide, embracing each 8,000,000 square miles. Instead of this division the ancients used the word climate to signify that obliquity of the sphere with respect to the horizon from which results the inequality of day and night. The day and night are of equal length on the equator—soon varying as the poles are approached either north or south.

The following table, copied from "Muller's Meteorology," will give a very good view of this use of the word climate; also showing the length of the day in different latitudes:—

Polar elevation.	Length of the longest day.
0	12 hours.
16 deg. 44 min.	13 "
30 " 48 "	14 "
49 " 22 "	16 "
63 " 22 "	20 "
66 " 32 "	24 "
73 " 39 "	3 months.
90 "	6 "

Some of the ancients, instead of nine divisions, made twenty-four between the equator and the polar circles, and six between the polar circles and the poles—the former called half-hour climates: because, from one to the other the length of the day is increased half an hour; the latter called month climates, because between any two of the lines, as the pole is approached, there is a difference of a month in time.

The annual mean temperature of a belt 1,390 miles wide, embracing 10° each side of the equator, and on a level with the sea-coast, is said to be about 82°—varying, however, whether an eastern or western coast, always higher on the western. The sun being twice vertical in the year to every place lying in the hot zone, every place situated within this belt has two summers and two winters every twelvemonth. The difference of temperature is so trifling as scarcely to attract attention. At Cumana, in South America, situated at 10° north latitude, the mean temperature of the winter is 80¼°; and that of the three hotter months is only 83½°. The mean temperature of Havana, on the island of Cuba, situated 23° n. lat., is 78°; that of Madras, in lat. 13°, is 81°; that of Manilla, the principal of the Philippine islands, in latitude 15°, is the same as Havana. The temperature here is remarkable for its equaminity.

The annual mean temperature of Massowa (Abyssinia, 15½° s. lat.) 87-6°; of Mexico, (19½ n. lat.) 62°; of Lisbon, (38½° n. l.) 61.4°; of Madrid, (40½ n. l.) 57-4°; Baltimore, (39° n. l.) 53°; of Paris, (49° n. l.) 51.3°; London, (51½° n. l.) 50.9°: Vienna, (48 n. l.) 50.1°; of Geneva, (46° n. l.) 49.3°; of Berlin, Edinburgh, Hamburgh, and Tubingen, (the first 52½°, the second 53½°, and the third 56°, and the fourth, 48½ n. l.) each 47.6°; of Rochester, (43° n. l.) about 48°; of Petersburgh, (60° n. l.) 38.2°; of North Cape, (71° n. l.) 32.1°; and of Melville Island, (75° n. l.) 1.75 below zero. The mean temperature of the winter of the last place mentioned, is 28.2 below zero; of the spring 3.1 below; of the summer 37.1 above; and the autumn 0.4 below zero; the coldest month, February, 35.8 below zero.

As will be well recollected by those who read the article on the "Distribution of Plants," in the last number of the Farmer, it is found to be much colder on the eastern coast of either continent than on the western; that is when the annual temperature of places on the eastern coast of America is compared with those of the western coast of Europe, a remarkable difference is seen. Nain, on the coast of Labrador, 57° n. lat., has an average temperature of 26.5°; Christiana, in Norway, 60° n. lat., average temperature 42.7°.

The average temperature of Quebec is 42°, while that of Amsterdam, 5½° further north, has an average temperature of 52°. Halifax lies in the same latitude with Bordeaux, New York with Naples. The average temperature of Halifax is 13° lower than Bordeaux; and that of New York 7° lower than Naples. As the equator is approached these differences gradually diminish, as seen by comparing St. Augustine and Cairo; each, situated 30° n. lat., has almost the same degree of temperature.

New Archangel, on the west coast of America, has nearly the same lat. as Nain on the opposite coast; yet its average temperature is 19 deg. above that of Nain. Pekin is further south than Naples; yet the former being situated on the eastern coast of Asia, has an average temperature of 9 deg. lower than that of the latter. In the northeast of Ireland, lat. 55°, the average temperature of the winter is about 8 deg. above freezing point: here the myrtle thrives as well as in Portugal. On the coast of Devonshire the

Camelia Japonica and the *Fuschia Coccinea* winter in the open air.

But it is time to notice the causes of this unequal distribution of heat over the same latitude and altitude of the earth's surface. These are here presented as condensed from Muller's work, already quoted from. Muller says that, "In the northern temperate zone, southwest and northeast winds prevail, the former from the equatorial regions, bearing with it the genial influences already noticed. The second cause, to which Europe owes its relatively warm climate, is, that in the equatorial region, it is bounded on the south by Africa, whose vast extent of desert and sand render it extremely hot, exposed as they are to the vertical rays of the sun. A heated current of this air is continually rising from these glowing hot sandy wastes, and is borne over Europe, where it mingles with the air and greatly elevates its temperature.—Finally; the *Gulf Stream* contributes greatly toward rendering the European temperature milder than that of other countries of the same latitude and altitude. This stream or current has its origin in the Gulf of Mexico, where the temperature of the water is 87 deg. This heated water is borne off toward the coast of Europe, and in lat. between 45 ° and 50 ° the temperature in January varies from 51 deg. to 48. And there are two other important causes to be mentioned, viz.: there are no mountains to interrupt these currents of warm air on the southwest and west; and secondly, Europe does not extend so far north as either America or Asia—and it is also protected by northern seas which greatly modify the cold from the north."

Thus are presented a few of the great facts which go to make up the science of Climatology.

Rochester, April, 1849.

Spirit of the Agricultural Press.

Washing Sheep.—A correspondent of the Prairie Farmer says he washed his sheep last spring in the following manner—as recommended by an experienced wool dealer :—

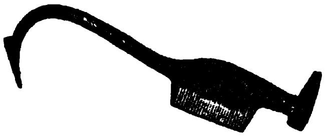
I took a trough that would hold about a barrel, and filled it with soap suds. I laid a board on one edge of the trough, slanting towards the trough, so that when a sheep was dipped and taken on to the board the water would drain into the trough. A boy took the hind legs of the sheep, and I took the fore legs, and turned their back into the trough; then raised them out on the board and squeezed the wool thoroughly with our hands. When the soap suds grew low we would add more—having a quantity of dissolved soap in readiness. The suds should be made very strong.

When we had thus soaked them all, we commenced washing. I found the wool whiter and cleaner than I ever got it before without soap, though I have helped to wash sheep more than twenty years. And when we came to shear the sheep, we found the ticks all dead. Not more than four live ticks were found on any one sheep.

Fence Posts.—A practical farmer informs the Hartford Times, that in taking up a fence that had been set fourteen years, he noticed that some of the posts remained nearly sound, while others were rotted off at the bottom. On looking for the cause, he found that those posts that were set limb part down, or inverted from the way they grew, were sound. Those that were set as they grew were rotted off. This fact is worthy the attention of the farmers.

Scare Crows.—We have for several years used sheets of bright tin, tied to slanting poles ten or twelve feet in length. Six or eight sheets are sufficient for an acre, and they have proved to be the cheapest and best scare-crows we have used. The motion given the sheets by the wind, causes a brilliant reflection of light at every turn, when the sun shines, and no crow has ever troubled our corn fields while the tins remained suspended upon the poles.—*Boston Cultivator.*

Chinese Hemp.—French agriculture has recently been enriched by a very important new production. This precious article is the Chinese hemp, the seeds of which were imported into France by M. Stier, a member of the French embassy in China and has been cultivated and naturalized at Marseilles by M. Garnier Savatier. This hemp, the reproduction of which is now secured by the seeds which have ripened in the best possible manner, grows to a height of twenty-four or twenty-five feet, the stalk is from 5 to 6 inches in circumference, each plant produces from two to three kilograms of seed, and furnishes thread enough to make a yard of superb lawn, superior in beauty and quality to any obtained from French materials. The cultivation of the plant in the south of France will be the more precious to the country as a climate of the temperature of that region is necessary for its fructification, and its seeds will find a ready sale in other countries where the seeds will not ripen, but where the filaments may be produced. The South will thus have a double advantage. Some specimens of this plant were exhibited at the Agricultural Show at Montpolier. The height of it was from twenty to twenty-five feet.



Grafting Chisel.—The above is probably the best form for a Grafting Chisel. The wide edge is used for splitting the stock, after being cut off with a fine pruning saw. The two pointed ends are used to open the same to receive the scions.

Marking Sheep.—An agriculturist says, I wish to impress it upon every one who keeps a flock, if not more than half a dozen, that Venetian red is the best thing that I ever saw used to paint-mark sheep. It is, as most all know, a cheap red paint, only a few cents a pound, and one pound will mark a thousand. Take a pinch of dry powder, and draw the thumb and finger through the wool upon the particular spot you would mark, loosing the powder at the same time, and it will combine with the oil of the wool, and make a bright red mark that rains will never wash out, and which will endure from one shearing to another, but does not injure the wool. It is readily cleansed out by the manufacturer.

The Striped Bug.—We find in the Vermont Agriculturist the following, recommended as a sovereign remedy for that pest of the melon vines—the striped bug. "Take half a peck of manure from the hen-roost, put it in an old tub or box, and add four gallons of water. In twenty-four hours, by stirring it two or three times, it will be ready for use.—Put half a pint of this liquid upon a hill of melons or squashes, and the *striped bugs* will certainly vanish. At least we have found it so on repeated trials, for several successive seasons. The bugs may not every one vanish on the first trial; and they may re-appear; but we have never had a vine injured after this application. Besides protecting the vines, this liquid is the very best of manure, and the application may be frequently repeated, wetting the leaves if a stray bug or two should linger on them, without apprehending any harm.—The manure tub will bear to be filled up several times with fresh water. The only objection to this plan is made by the olfactory nerves."

New Invention in Baking.—The Glasgow Citizen (Scotch Paper,) says that a machine has been invented in that city which both kneads the dough and moulds the loaves into the required shape, ready for the oven. One machine not quite a yard in length and 18 inches in breadth, by the attendance of one man accomplished as much work as five bakers, and the bread was of the best quality. The Citizen also says, that "by a new and original process of mixing and kneading, which can be done either with or without barm (yeast) the usual loss of weight attributed to evaporation in 'raising the sponge' is avoided, and a great saving of flour, as well as time and labor is effected."

Clover Seed Sown with Buckwheat.—On a late visit to Hydepark, we were shown several fields of heavy clover on the farm of J. W. Wheeler, Esq., which was sown last season, with buckwheat and timothy. The soil is a gravelly loam, and the grass exhibits a burthen superior to that generally sown in the spring. This, we believe, is the practice of Judge Van Bergen, of Coxsackie, who is one of our most successful farmers.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

THERE is no other branch of horticultural practice more discussed, and withal, less understood, than the simple matter of TREE PLANTING. To plant a tree properly means more than to dig a hole and put the roots into it, and cover them with earth: yet more than half, we might say three-fourths, of those who do plant, consider this the *only* necessary process, and wonder when they have done it that their trees do not grow well. Every planter should remember that few trees are in the proper state to plant as they are taken from the nursery. The nurserymen desire to have their trees well clothed with branches; and if replanted with all these branches left entire, a tree will either die the first season or make a very feeble effort at living. Grow it cannot, for the roots that would have fed and sustained all these branches have been mutilated and disabled from performing their usual functions until they have emitted new roots.

Now some trees form roots much quicker than others—and some soils and seasons are much more favorable for the development of roots than others—so that certain kinds of trees, and in certain soils, a transplanted tree will bear a large head and numerous side branches, and yet live and grow, while other trees in other soils will remain a year before any considerable number of new roots have been formed. Among fruit trees, the *apple*, the *quince* and the *peach* emit roots much more freely than the *pear*, *plum* and *cherry*—and in light, sandy, friable soils form much more easily than in stiff, moist, adhesive soils These are familiar facts to all cultivators, and they serve as a guide in planting.

But under all circumstances it is unsafe to plant a tree without reducing its branches in such a manner as to compensate for the loss of root, and general derangement inseparable from removal. Let us take, for instance, an apple tree, six feet high, with a fine head and numerous side branchess. This tree was growing vigorously in the nursery, with its roots spread out and well at home in the soil; but the tree is dug and pulled up, part of its large roots are *cut* off, many of the smaller ones are dragged off, and before it is planted a great many more are dried or rotted and killed off. Thus the tree is left minus a great portion of its feeding roots, on which the top must depend for support. Its nice balance, which nature and art gave it in the nursery rows, is destroyed, and without some compensation it cannot live—at least it cannot grow for a long time to come. The opening buds seek for nourishment, but after the little stock laid up previously is exhausted, they can find none, and perish they must.

How often have we heard people say, "my trees leaved out nicely, but died away immediately after;" and this was owing to a defect in the roots—they could not meet the demands of the mass of buds struggling to grow. The cause might be in a large head, small or poor roots, an unfavorable soil, or in all combined. Now how are planters to guard against these difficulties? Simply by the exercise of a little judgment in the matter. If a tree has attained considerable size, and has a branching head, these branches should be cut back according to circumstances. A tree with large and healthy roots, and abundance of fibres, will sustain a much greater amount of head than a tree with short, poor or badly mutilated roots, and few fibres. Apples, Quinces or Peaches will bear more head than pears or plums, and so on. Trees taken fresh from the soil and replanted do not require the same degree of cutting as those that have been transported to a great distance. Trees that are planted in a light, mellow, warm soil, favorable to the formation of roots, will require less cutting than those planted in a colder, stiffer soil, where roots will be emitted slowly. Trees taken up with the earth around the roots, and evergreens, are the only exceptions. These are a few of the circumstances to be well considered by every one who plants a tree.

Pruning and cutting back, must not only be done, but done well. It is next to manslaughter to cut and slash the branches of a tree with an old rusty saw-edged jack-knife. It is nothing else than tree-slaughter, and there are thousands that ought to be convicted of it this moment, and sentenced to seven years pilgrimage on a treeless prairie, for their cruelty and carelessness. It would fare ill with them were they brought before a court and we were judge. A pruning knife should be as sharp and smooth on the edge as a razor. When a branch is to be wholly removed it should be done smoothly, close to the trunk or limb on which it grows. If a limb is merely to be shortened, it should be cut close to a good plump and healthy looking bud, that promises to make a vigorous shoot. If the future shoot is desired to grow erect, the bud should of course be on the upper side of the branch cut; and if desired to take a spreading or horizontal direction the bud should be on the under side. The object in cutting close to the bud, (not so close as to injure it,) is to avoid the piece of dead wood that must remain, if cut between two buds. Then the balance of the tree must be thought of. If the branches are left longer on one side than on the other, the tree will inevitably grow one-sided; the shoots on one side will be more vigorous than on the other, and this will be another disaster. This is as plain as we can at present make the matter in a few words. To sum it up, in short, we would say—

1st—Place the roots of your trees in a soil *favorable to the formation of roots.*

2d—*Reduce the heads* in a manner to correspond with the character of the tree, the condition it is in, and the season and situation in which it is planted.

3d—In every operation exercise *reason* and *care*, for it is astonishing what even the unpracticed hand can do, if he will but *think*.

These remarks would perhaps have been more valuable last month, but even now they are not too late for many to profit by them. A great many spring and even last autumn planted trees, may be saved and benefitted by a careful shortening and thinning of their branches. Had it not been for the absence of our engraver, we should have illustrated these suggestions with cuts that would have rendered them more servicable.

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SOW PEAS.—"Bishop's Early Dwarf," "Early Prince Albert," and "Landreth's Extra Early," are all good kinds for early sowing. The "Blue Imperial," and the large "White Marrowfat" are good kinds, but later.

HINTS FOR MAY.

Transplanting of all deciduous trees will have been completed. Evergreens may be transplanted nearly all the month. Large trees cannot be moved with safety, unless with large balls of earth attached. Plants from one to two feet are always safe. Among our native trees the *White Pine, Hemlock, Red* and *White Cedar, Balsam Fir* and *Juniper,* are all worthy of attention and easily procured. Among foreign trees the *Norway Spruce, Silver Fir, Chinese* and *Siberian Arborvitæ, Scotch* and *Austrian Pine* are among the most common and are all fine trees, and are now sold cheap in the nurseries.

The new and rare Evergreens are generally kept in pots for safe removal, and may be planted out any time. The principal of these, now to be had at the nurseries, are the *Deodar Cedar,* the *Auracaria* or *Brazil Pine,* the *Cedar of Lebanon, Himalayan Spruce,* and *Pinus Excelsa.* These are all elegant trees for lawns.

Hedges of *Norway Spruce, Red Cedar, Hemlock, Arborvitæ,* &c., may be made all the month. Small plants, one or two feet high, are the best for this purpose.

Hardy Annual Flower Seeds may now be sown where wanted to bloom—and those raised in frames planted out on a dark day.

Border Plants of all sorts wintered in the house or in frames, may be planted out in masses. The principal of these are the *Everblooming Roses, Scarlet Geraniums, Verbenas, Petunias, Salvias, Heliotropes,* &c., &c. *Phloxes* of the more dwarf varieties make elegant plants for masses, and as a stock of them are always kept in pots, may be planted out any time. *Dahlias* should be planted about the latter end of the month. Strong young plants raised from slips this season will give a better bloom than old roots.

VEGETATION IN MISSISSIPPI.

Dear Sir:—I have this day (March 7) measured the growth of some trees here, so as to be certain in my figures. I measured a *peach tree,* budded Sept. 18, 1846, removed from my nursery 6 days ago—it measures 9 inches in circumference within 6 inches of the earth, and retains this size for over two feet. *Apple,* grafted in Feb., 1848, over 2 inches. *A cutting of a seedling pear,* put out Feb., 1848, is now 2 inches in circumference. *Quince cutting,* put out Jan., 1848, over 2 inches. *Pawlonia Imperialis*—a cutting of a root not larger or longer than a pencil case was put out Feb., 1848—it is to-day 7 inches in circumference, and I suppose it to be over 10 feet, as I had no pole convenient. *Asparagus* 26 inches high to-day—not strong enough yet for cutting.—*Red bud* in bloom. *Dog-wood* in bloom. *Double Flowering Apple* in full bloom on the 5th.

I saw an apple tree bloom to-day. Several varieties of pear in bloom. Forest trees have quite the appearance of spring—in a few days the trees will be green, as red oak and post oak buds are nearly bursting. The bark of the forward seedling peaches and of quinces will now admit of budding; and by way of trying, I budded a peach on Monday, the 5th, and a plum to-day.

These items may prove pleasing to you, and if you deem them to be worthy of record, hand them to Genesee Farmer. [We are much obliged for them. —Ed.] With respect, &c., yours, M. W. Philips.

Washington, Miss., March 7, 1849.

SUMMER BON CHRETIEN PEAR.

Friend Farmer:—The object of this communication is to do justice to an old and honored friend, the *Summer Bon Chretein Pear,* and say, come up hither, for thou art worthy of a higher seat. That different varieties of pears are not adapted to the same location, I believe to be an orthodox doctrine; and however poorly the stock may do elsewhere, or however much it may lack flavor, or however undeserving it is of a place in a small garden,* it certainly ranks high in this section of country. The tree is one of the most healthy and vigorous that we have. It seems to be at home on the quince, apple or pear. It is also a good bearer, and instead of the fruit's lacking flavor, it is one of the highest flavored varieties grown in this part of the State. A neighbor of mine who has the *Onondaga* or *Swan's Orange, White Doyenne, Gansel's Bergamot,* and *Dearborn's Seedling,* in bearing, together with the *Summer Bon Chretien,* told me a few days since that he thought the latter decidedly the best pear he had ever ate. David Thomas, too well known to the fruit culturists to need an introduction, once told me that he considered the Summer Bon Chretien the best eating pear he had. The Fruit Culturist, by J. J. Thomas, if my memory serves me correctly, does it very good justice. My friend Thorp, of the firm of Thorp, Smith & Hanchet, of the Syracuse Nursery, told me that he had seen them on the Hudson and thought that Downing's description of them was correct for that section, but that it would not apply here. I think then that it is but fair to conclude that although it may prove indifferent on the Hudson or in more southern and eastern longitudes or latitudes, yet for this country or even farther North, for I am told that it prospers in the vicinity of Montreal, it should not be given up. But in both the garden and orchard, it should have a place among the first class of pears. Cephus.

Hinmanville, Oswego Co., April, 1849.

We find this old pear in our markets every year in abundance, indeed much more plentiful than any other; and while we admit that it may be called *good,* we must say that it is, to our taste, inferior *greatly* to Bartlett or Seckel. We think with Cephus that it succeeds much better here than in the East.—Ed.

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*Downing's Fruit and Fruit Trees of America.

The Season.—The spring so far has been exceedingly cold. About the middle of April, after a week of mild, growing weather, we had three days of extreme cold. The ground was frozen two to three inches deep, and all out door work suspended. In some places the fruit crop, particularly peaches is said to be injured; but, as far as we have seen, the prospect here is fair. Neither the unusual severity of the winter, (as low as 10° below zero,) nor this untimely April frost, has materially injured the crop in this vicinity. In the South the peach crop will probably be an entire failure.

To Preserve Flowers.—Ladies who wish to preserve flowers are recommended to try nitrate of soda. As much as can be held between the thumb and finger placed in the water with flowers, will preserve their freshness and beauty, it is said, for a fortnight.

PAXTON'S MAGAZINE OF BOTANY.

This famous English Journal closed its fifteenth year on the 1st of January last. It has been, during the whole of its existence, devoted almost exclusively to notices of new flowers and flowering plants worthy of cultivation, and has rendered important service in this department.

Both its character and title are now changed. The introductory address says: "The present state of society, however, requires us, in commencing our labors for 1849, to enter upon a far more extended field of action. Floricultural subjects, however lovely or enchanting, are not the only ones which must henceforth occupy the attention of those who would keep pace with the progress of gardening pursuits; for although an almost undivided attention has been paid by many practical men, for years past, to ornamental plants, it has only been with the design of placing Botany and Floriculture in the same position as that occupied by the other and perhaps more useful portion of the vegetable creation. This end being attained, we feel that we can now usefully direct our attention to vegetable nature in all its vast variety, and cultivation in all its different forms, both of fruits, vegetables and flowers." The new work is, therefore, to be called "The Magazine of Gardening and Botany," and will "include articles from the first pens on Botany, Floriculture, Horticulture, Arboriculture, Landscape Gardening, Natural Science, Rural affairs, and every other subject connected directly or indirectly with the vegetable creation." We have no doubt but this Magazine will in future be the best of its class in England, or perhaps in the whole of Europe. We do not suppose that many of our readers know anything of it, or feel any interest in it; our only object in noticing this change and its cause is, that something of the condition and progress of English Horticulture may be learned from it.

THE PLUM.

Our correspondent J. H. W., of New Haven, N. Y., sends us the following acoount of his experiments in plum culture:

"This article shall be devoted to the Plum tree. Perhaps my best course would be to give the history of one particular tree—a blue damson—the only one I succeeded in saving out of quite a number planted at the same time; the black gum destroying all the others, in despite of all I could do with the pruning knife. This was attacked in the same way, but being younger, I destroyed the knots as fast as they appeared. The tree stands on a heavy clay loam[*] I made the ground quite rich, and then put on a heavy top dressing of unleached ashes. I believe that nearly all trees flourish well on new lands. May we not take a hint from this fact, and by restoring to the soil what has been exhausted by cultivation, succeed well with all fruits suited to our latitude.

Since the time I applied the ashes I have not seen a black knot upon it. It was vigorous and healthy. But although it grew well and blossomed every year, it produced no fruit—all blasted. A friend from a neighboring county advised me to apply salt; I did so the next spring, covering the ground as far as the limbs extended nearly one quarter of an inch thick: that year, for the first time, the tree was loaded with fine fruit.

But now came another enemy which had never troubled me before—I mean that exceedingly provoking little insect, the curculio. The fruit set well, but less and less came to maturity, till in the summer of 1847 not a plum ripened. I tried the way recommended by D. Thomas; I shook the insects from the tree and killed them, and destroyed the fallen fruit; but all to no purpose. Last spring I tried another remedy which I had seen recommended; with a half inch augur I bored about two-thirds through the tree and filled the hole with sulphur, covering it with a plaster of grafting wax. This is better than plugging, as the sulphur then comes in contact with the sap. Now for the result; the year before not a plum ripened, but last fall the tree was literally loaded with fine fair fruit. I state the simple facts; others may draw their inferences."

NORTH AMERICAN POMOLOGICAL CONVENTION.

The undersigned, a Committee of the above Convention, who were appointed at the meeting held in Buffalo last September to report such plans for the organization of future Conventions—should it be deemed advisable to hold them—as might be deemed necessary to carry out successfully the objects for which they were to meet, agreed, after consultation, as part of their plan, to appoint committees for each State, Territory, and the Canadas, whose duty it should be to report the results of their observations and consultations in relation to matters suggested for their action in a circular—(which was issued by us and sent to each one of them)—on the first day of the assemblage of the Convention, which was by unanimous resolution agreed, should be held in the autumn of 1849.

The Committee have had their attention called to an editorial in the Horticulturist for March, in which it is stated that the North American Pomological Convention is a defunct Convention, and that the State Committees have received the compliment from a Committee which does not exist, or by an authority unknown. Without intending in any way to comment on the article alluded to, the Committee think it their duty to remark that by a perusal of the report of the proceedings of the Buffalo Convention, it will be seen that the report of this Committee, making the Convention a National and a permanent one, was adopted unanimously; that it is entirely unconnected with the New York State Agricultural Society, and that the designation of the time and place for its next meeting, where the great fair of that Society is to be held, was done for the better accommodation of the public who are in the habit of attending it from all parts of the country, and also as a compliment to that Society, in acknowledgement of the great benefit they had conferred on Horticulture, by being the *first* to move in calling a National Pomological Convention. The Committee, owing to the hurried close of the Convention at Buffalo, had not time to concoct, or submit fully, their plans for the consideration of the Convention, and in doing it thus far afterwards, they conceive that they are carrying out the true spirit and intent of their appointment, and that their action will meet with the approbation of all concerned.

The Committee therefore hope that the gentlemen appointed will not be deterred by the article above alluded to, from attention to the several duties which have been submitted for their action, as the North American Pomological Convention will convene at Syracuse in the State of New-York, on the 14th day of September next, at 10 o'clock, A. M.—it being the day succeeding the closing of the annual fair of the New York State Agricultural Society.

Pomological, Horticultural, Agricultural, and kindred Societies, or Associations, throughout this Continent, are requested to send delegates to the Convention; and gentlemen resident in vicinities where no societies exist, who take interest in the advancement of Pomological science are also invited to attend.

J. D. G. Nelson, Indiana, *Chairman.*
James Dougall, Canada.
Herman Wendell, M. D., New York.
J. C. Holmes, Michigan.
Lewis F. Allen, New York.
F. R. Elliott, Ohio.
N. Goodsell, New York.
March, 1849. *Committee.*

Native Wine.—Cincinnati is in rapid progress of becoming the great market of American wines. The vintage of 1848 will reach fifty-thousand gallons, equal to eighteen hundred quarter casks. The finer qualities are sold in bottles, and the Catawba wine of our favorite brands are sold off as fast as sent into market. These wines are manufactured without the addition of spirit, and have a character and flavor peculiarly their own.

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[*] Mr. Downing says he never knew trees, on such a soil to be attacked with the circulio.

[Does he not say that trees in a heavy soil are less subject to the attacks of the curculio than they are on a light soil?—Ed.]

[From the Horticulturist.]

DESCRIPTIVE NOTICES OF FIFTY RARE OR NEW PEARS.

BY ROBERT MANNING, SALEM, MASS.,

[We have much pleasure in publishing the following notes, and in calling the attention of pomologists and amateurs to them. Mr. Manning's reputation as a pomologist is well deserved; for he unites enthusiastic zeal, excellent judgment, and sterling honesty,—qualities so rarely combined in *devotees* to any art: and he has the advantage of the experience of two generations. We have either tested in our own, or carefully noted in other gardens, many of the sorts he notices, and our opinion accords almost entirely with those expressed by him. Ed.]

1. *Bergamotte Cadett.*—This pear has been cultivated for some years as Beurre Beauchamps; but that name not having been firmly established, it was thought best to substitute for it the one at the head of this notice, which is that adopted by the London Horticultural Society. I wish now to recommend a more extensive trial of it, as I do not think it has been as much cultivated as it deserves to be. It is rather under middle size; form roundish obovate; flavor very fine, sometimes excelling the Winter Nelis. Ripe the early part of winter. I do not notice the diversity in the ripening of this sort, mentioned in the London Catalogue.

2. *Beurre Kenrick.*—I have now fruited this pear several years, and have had many specimens, some of which were very fine of their kind; but I do not think it entitled to be recommended for general cultivation. It ripens the first part of September.

3. *Beurre d' Angleterre.*—Very productive, but soon decays at the core.

4. *Beurre Adam.*—A new pear, not yet fully proved. It appears to resemble the *Bishop's Thumb.*

5. *Beurre of Bolwiller.*—A variety received from Dr. Van Mons, which may fairly claim a place in the rejected list.

6. *Beurre Delbecq.*—The same remarks as were made on the last will apply to this.

Beurre Witzhumb proves identical with *Beurre Delbecq.*

7. *Bergamotte Parthenay.*—A winter fruit, lately imported from France; worthless as a dessert pear, and though good to cook, but being deficient in size, it is hardly worth cultivation for that purpose, while we have plenty of larger ones.

8. *Ambrosia* does not come up to the reputation given it in the books. It is not a melting, but a breaking pear, and does not ripen here before the first of September. It is commonly said to decay very soon; but I think it keeps full as long as most pears of its season. Tree of upright growth, making strong shoots, of a very dark, purplish color, thickly marked with white dots.

9. *Alpha.*—To my taste, this is one of the finest pears. It is sweet, and exceedingly fine grained, melting and juicy. The tree is a great bearer; and although the fruit does not hold on very strongly, those which blow off open so as to be full as good, or even better than the others. And I may here remark, that many of the autumn pears are as much improved as the summer fruit, by being taken from the tree before fully ripe.

10. *Aston Town.*—A good grower, making smooth, vigorous shoots, of a light gray color. Fruit rather small, with a long stem, and ripening the first of September, but so much inferior to many others of the same season as to be hardly worth growing.

11. *Beurre Van Marum.*—Hardly comes up to medium size, but is of very fine flavor. It appears to be allied to the Urbaniste. Ripe the first half of October. It is easily known, by the peculiar insertion of the stem in a small regular cavity. Stem long, slender and curved, with a little swelling at the bottom. Bears young and well. so that the shoots are soon thickly covered with fruit spurs. Leaves long. narrow, flat, and pointed at both ends.

12. *Henkel.*—Received from Dr. Van Mons. It resembles the B. Van Marum in its early and abundant bearing, in shape and color, in the length and curvature of the stem. and in its likeness to the Urbaniste; but differs in being larger, a month earlier. and the stem being stouter. It ripens the first part of September, and is among the best of its season.

13. *Burgomaster.*—The true variety is very distinct from the Vicar of Winkfield. Of medium size, long pyriform; skin pale, yellowish green, sprinkled with rossett; flavor very poor. The wood cankers worse than that of any other variety, without exception. Altogether, one of the most worthless.

14. *Brandes St. Germain.*—I think this must have been among the first originated by Dr. Van Mons; as it is stated in *Prince's Pomological Manual*, published in 1831, to have been raised seventeen dr eighteen years previously. It was comprised in the first lot of scions received from Van Mons; but its great merits have remained unrecognised until quite lately. For several years past, it has proved one of the finest winter pears. Form oblong, pointed at the stem, which is always planted obliquely on one side; skin brownish yellow, often with much smooth russett; flesh rich and juicy, with a vinous flavor, resembling the St. Germain or Dix. Tree productive, and a tolerable grower. Foliage small and narrow, like the old St. Germain. It succeeds finely on the quince. Altogether, I think it a most desirable variety, especially when its season is taken into consideration; as we are deficient in good winter pears.

15. *Columbia.*—With me, this has proved rather unproductive, and very apt to blow off; and though large, fair and handsome, I cannot say much in praise of its flavor.

16. *Capucin*, (of Van Mons.)—A very high flavored, juicy pear; skin of a dark brownish red; surface knobby.

17. *Caen du France.*—A rather singular looking, but handsome pear: form obovate, sometimes lengthened. and pointed at the stem; skin russeted, and thickly sprinkled with raised dots of darker russet, and often with a fine red cheek; medium size; flesh very fine, juicy and sweet; flavor resembling the Winter Nelis. Ripe in December and January. From Dr. Van Mons.

18. *Coter.*—Another from Dr. Van Mons, and a very fine one, among the first of those received from him; medium size; form regular obovate; skin pale green; flesh very fine grained, tender and melting, filled with a refreshing juice. Ripe in November; at which time there is none superior to it. The tree makes a round, compact head; young wood, short jointed, light yellow.

19. *Clara.*—Unworthy of cultivation.

20. *Cuvelier.*—Unworthy of cultivation.

21. *Doyenne Boussock.*—One of the most valuable additions to our list of fine new pears. It is a White Doyenne, on a much larger scale. Tree very vigorous, foliage large, thick and glossy. Last of September and first of October.

22. *Dundas.*—Exceedingly handsome, and pretty good; apt to blow down.

The *Parmentier* proves to be the same as Dundas.

23. *Easter Bergamot*—I do not think worth growing, either for dessert or kitchen use.

24. *Foster's St. Michael.*—Wood cankers badly, and the fruit is inferior to many others of its season,—the first part of September.

25. *Gilogil*—I have discontinued cultivating, on account of its unproductiveness.

26. *Gendeseim.*—Medium size, obovate, pale, greenish yellow, sprinkled with russet, melting, juicy, and of good flavor. A very strong grower on the quince. October.

27. *Flemish Bon Chretien.*—One of the best pears for cooking in the winter.

28. *Green Sugar.*—Unworthy of cultivation.

29. *Doyenne d' Hiver.*—This pear was a favorite with the late S. G. Perkins, Esq., from whom it was received here. It is large, fair and productive; though not high flavored, it is sweet and juicy. I think it a desirable sort, particularly for market. It is the same as "Coffin's Virgalieu." which was received from France with the name lost, and thus designated from the name of the importer, and its resemblance to the White Doyenne or Virgalieu. Ripe early in winter.

30. *Wilbur.*—Medium size, obovate: skin of a dull yellowish color, sometimes almost covered with russet; flavor often decidedly first rate. A native pear, productive and hardy. Ripe in September.

31. *Limon.*—For one who loves a pear, full of rich, *sprightly* juice, there is nothing superior to the Limon, among the summer fruits.

32. *Elizabeth*, (*Manning's.*)—This very fine summer pear is one of the best growers on the quince. It bears young and well.

33. *Duchess of Orleans.*—One of the most perfect of pears. Tree vigorous,—making light yellow shoots, an early and abundant bearer; fruit very handsome, and of delicious flavor. It fruited here in 1845, for the first time in this country. Some of the specimens then produced were the finest pears I have ever tasted. Grows well on the quince. Ripe in October.

34. *Tyson.*—A very rich, sweet, summer pear, of medium size, and pyriform figure. The *Tyson* and *Rostiezer* are among the few pears which may be said to approach the

Seckel, in flavor. The growth of the tree is healthy and vigorous,—making a handsome top, resembling the Seckel; but taller. Ripe the last of August. A native of Philadelphia.

35. *Las Canas.*—Received from M. Emilien de Wael, of Belgium. It proves to be a very fine pear, of medium size, pyriform; skin pale yellow, often partly covered with thin russet; seeds very black; flesh juicy, very sweet and rich. Tree upright and vigorous, bears young and well. October.

36. *Paradise d' Automne.*—Quite distinct from the Beurre Bosc, though resembling it in general appearance. A very striking difference is observable in the flowers. The texture and flavor of the flesh are even superior to that magnificent pear. I consider it the most valuable addition to the list of fine new pears which has ever been introduced at the Pomological Garden. The growth of the tree is more vigorous than any other pear whatever. October.

37. *Citron des Carmes Panache*, or *Striped Madeleine.*—The difference between the fruit of this, and the common Madeleine, consists in the skin of the former being striped with light yellow, and the flesh being a little sweeter; wood short jointed, striped with dull red and yellow. Not being as vigorous as the common Madeleine, it is less liable to the blight. Of two trees, standing about three rods apart, the striped variety has never been in the least affected, though much younger than the common kind, which was badly injured. Both varieties ripen together.

38. *Doyenne d' Ete.*—A nice early pear, and very handsome; rather under medium size; form obovate: skin yellow in the shade, bright red next the sun; flesh juicy, and of pleasant flavor. Ripens the last of July, with the Madeleine, and is full as good. Bears very young; trees of two or three years from the bud are frequently covered with fruit buds, making it quite difficult to get any growth on them.

39. *Jean de Witte.*—A new winter pear, not unlike the Winter Nelis in size and flavor, and I think fully equal to it; form obovate, a little flattened; skin pale yellow. "No. 1482, of Van Mons," which I have before described and recommended, proves identical with *Jean de Witte;* as also, Nos. 1082 and 1602. The habit of the tree is very similar to the Seckel, with short jointed shoots and compact head.

40. *Plombgastel.*—This has fruited on scions received from J. C. Lee, Esq., who imported it from France: medium size, dull, greenish yellow and russet, in flavor about as good as the Bartlett. The tree makes very stout shoots, and grows well on the quince. September.

41. *Calebasse Monstreuse.*—A large obovate pear, tapering both to the eye and stem, very productive, and excellent for cooking. Winter. Its shape not being at all like that of a calabash, has created some suspicion that it may be incorrect. It was received from M. De Wael.

42. *Fantasie Van Mons.*—Worthless.

43. *Bruno de Bosco.*—Worthless.

44. *Hampden's Bergamot.*—Often very large and handsome; skin smooth and yellow. I have tasted specimens which I thought as good as the Bartlett. First half of Sept.

45. *Citron of Bohemia.*—I think this has been overrated. It is a breaking pear, ripe the first part of September, and is certainly inferior to others of that season.

46. *Marulis.*—A Belgian fruit; a strong grower, very productive, high flavored, and high colored, but rather small and dry. August and September.

47. *Johonnot.*—Exceedingly rich; in flavor and appearance resembling the Brown Beurre, from which it was not improbably raised. I do not know of any thing surpassing it in flavor. Ripe here in September.

48. *Angleterre of Noisette.*—Very distinct from the Beurre d' Angleterre. A large roundish pear, of a dark green color, with a dark brownish red cheek. I do not consider it yet fully proved; but so far as it is, it does not appear worthy of propagation. Further trial may develope some valuable properties, either as a cooking or dessert fruit.

49. *Jalousie de Fontenay Vendee.*—Productive, and very fine flavored.

50. *St. Andre.*—Very delicious; wood somewhat apt to canker.

Robert Manning.

Pomological Garden, Salem, March, 1849.

Spare minutes are the gold dust of time; and Young was writing a true, as well as a striking line, when he affirmed that "Sands make the mountain and moments make the year." Of all the portions of our life, the spare minutes are the most faithful in good or evil.

Editor's Table.

To Readers and Correspondents.—Severe illness is our only apology for any apparent deficiency in the matter or arrangement of this number of the Farmer. The same cause has prevented us from attending to various inquiries—particularly those requesting answers by letter.

Our Advertising Cover is discontinued for the present. As there is but one steam press in the city, suitable for printing the Farmer and Cover, we find it impossible to publish both, and mail as promptly as is desirable.

Address at the State Fair.—The Albany Journal states, on the authority of the Secretary of the State Agricultural Society, "that Prof. James F. W. Johnston, of Durham, England, has accepted the invitation of the Executive Committee, and will deliver the annual address in September next, at Syracuse. Prof. Johnston is one of the most distinguished agricultural chemists in Great Britain, and we doubt not the announcement of his name for that occasion will secure the attendance of many distinguished gentlemen from our country, as well as from the British Provinces."

Gen. Taylor has accepted an invitation to attend the next Fair of the State Ag. Society, at Syracuse.

Hon. Henry Clay is to deliver the address at the Ohio Fair—to be held in Cincinnati, on the 5th, 6th and 7th of September.

State Ag. Societies in the West.—We are pleased to learn that State Ag. Societies have recently been organized in Michigan and Wisconsin. We will endeavor to give names of officers, &c., in a future number. The Legislature has granted a charter to the Mich. State Ag. Society, and appropriated $400 towards paying premiums. The fee of membership is $1, and there are already over one hundred members. J. C. Holmes, Esq., of Detroit, is Secretary.

Agricultural School Commissioners.—Under the resolution of the Legislature for the appointment of a Board of eight Commissioners, to mature a plan for the establishment of an Agricultural School, Gov. Fish has made the following appointments:

Joseph Blunt, New York, 1st district.
A. J. Downing, Orange co., 2d district.
John P. Beckman, Columbia co., 3d district.
Samuel Cheever, Saratoga co., 4th district.
Edmund Kirby, Jefferson co., 5th district.
Adrian Lott, Chenango co., 6th district.
Jas. S. Wadsworth, Livingston co., 7th district.
Wm. Risley, Chautauque co., 8th district.

Farmer's Barometer.—We are indebted to Mr. Jno. Kedzie, for a very neat and accurate Barometer, manufactured by the Brothers Kendall, New Lebanon, N. Y. Every farmer will find a good barometer a valuable aid in his calling, and those made by Messrs. Kendall are superior. For sale by J. Kedzie, No. 11 State-st., Rochester.

A Dictionary of the German and English Languages: by G. J. Adler, A. M., Prof. of the German Language and Literature in the University of the City of New York. D. Appleton & Co.

This is probably the best work of the kind published, to aid the learner of the German language. Its basis is Flugel's German Dictionary. It contains about 30,000 more words than Flugel's work, and will be found just the thing for the reader of German agricultural and scientific works. The lists of abbreviations, irregular verbs, and its synonyms will greatly facilitate the inter-communication between the German and American or English mind. The typographical execution is elegant. *

The Wheat Crop of Western New York, so far as we have been able to learn, has withstood the severity of the winter remarkably well, and promises a fair yield. Late Michigan and Wisconsin papers speak favorably of the wheat crop in those States.

Rye Grass.—"H. R." is informed that Italian Rye Grass may be obtained at the Genesee Seed Store, in this city—price $3 per bushel. Rye Grass does not thrive well in our long hot summers; nor can it be put in competition with Timothy. Indeed there can be no excuse for the exchange. If for meadows, sow the large clover, which is in season for mowing at the same period with Timothy.

The Osage Orange may stand our winters; but whether it is proof against field mice, which are the great enemy of live fences in all snowy regions, is yet to be settled.

PREMIUMS FOR SUBSCRIBERS TO THE FARMER.

Below we give the award of Prizes for subscribers obtained to the Farmer up to the 20th of April. In addition to the names here given a large number of persons have procured very handsome lists — to whom we are greatly indebted. It is a source of regret that we cannot afford to distribute a greater amount in premiums than was originally offered — for we are aware that many other friends and agents of the Farmer have devoted much time and attention to augmenting its circulation. We hope that we shall be able to offer, another year, such a list of Prizes as will prove more acceptable.

1st. To E. C. Bliss, Westfield, Chautauque Co., N. Y., for 238 subscribers—$40.

2d. To Silas H. Swetland, Jonesville, Saratoga Co., N. Y., for 287*—$30.

3d. To Samuel E. Norten, Phelps. Ontario Co., N. Y., for 286—$20.

4th. To Silsby & Keeler, Seneca Falls, Seneca Co., N. Y., for 159—$12.

5th. To John Davis, Birmingham, Oakland Co., Mich., 152—$6.

6th. To J. H. Stanley, Le Roy. N. Y., 149—V. W. Sunderlin, Dundee, N. Y., 125—Wm. Lyman, Moscow, N. Y., 121—J. D. Stone, Clyde, N. Y., 109—Apollas Kent, Amboy. Ohio, 104—for the five next highest list, each $4 in bound volumes of the Farmer, (or, though not first offered, other books if preferred.)

7th. To S. B. Wise, Jefferson, Greene Co., Pa.. 85—E. F. Munson. Oberlin, Ohio, 81—B. Farr, Albion. N. Y., 75—E. S. Marvin, Rollin, Mich., 62—H. J. Ray, Livonia, N. Y., 58—for the five next highest lists, each $3 in bound volumes of the Farmer.

8th. Oscar Warren, Willink. N. Y., 57—Moses Eames, Rutland, 57—H. Frisbie, Holley, 54—J. M. Swart, Quaker Street. 52—Jacob Boyer, Pittsburg, Pa., 51—O. C. Comstock. Marshall, Mich., 51—S. Lee, Camillus. 50—C. Fenton. Crown Point, N. Y.. 50—C. Leet, Harbor Creek, Pa., 49—D. P. Chamberlain. Hudson. Mich., 48—J. B. Lowell, Yates, N. Y., 46—for the next ten highest lists, $2 each in bound volumes of the Farmer.

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* Since the above was made out we have received the following despatch, by Telegragh, from Mr. Swetland: "On account of some pilfering in the post office at ————, please Telegraph to me immediately how many names you have received from me. The number should not be less than 280." If Mr. S.. has mailed remittances which have not reached us, it may change his from the second to the first premium.

Monroe County Agricultural Society.

An adjourned meeting of this Society will be held at the office of the Genesee Farmer, in Rochester, on the SECOND TUESDAY (the 8th day) of May instant, for the purpose of making out a Premium List for the current year, the appointment of Judges, and the transaction of other important business. A full attendence of the members is desired.

May 1, 1849. JOSEPH ALLEYN, *Sec'y.*

Seymour's New Drill.

THIS is one of the latest improvements in Drilling Machines, and is believed to be better adapted to the wants of the farmer in the line of a Seed Drill than any other before the public. Its operation is not only correct in drilling wheat, but also in all other grain,—such as peas, beans, corn, rye, oats, barley, &c. &c.

Nor is this all: Any desired quantity of lime, plaster, ashes or bone dust may be mixed with the seed and all deposited in the earth in the most correct manner. *More yet:* When the farmer wishes to plant corn, beans or any other seed in hills both ways, this is readily done. *Something more yet:* Its construction is such that the drill teeth, and all the fixtures necessary for drilling and not needed for broad-cast sawing, can be removed in five minutes—and a complete broad-cast machine is left, ready for sowing any kind of grain broad-cast.

Four sizes may be had. The smallest, with five teeth, is a very easy machine for a light horse and convenient for planting two rows of corn at once, 3 feet apart—one with 7 teeth for 1 or two horses—one with 9, one with 11 teeth, each for two horses. With either of the two large sizes three rows of corn may be planted at once.

The subscriber, believing the farmer will be better paid for his money in purchassng this instead of any other similar machine in the country, would invite those desiring an article of the kind, to examine his machine before they purchase elsewhere. All who would be sure of one of these machines as early as wheat-sowing next fall, should send their orders as soon as the first of June.

SEYMOUR'S BROAD-CAST SAWING MACHINE is also kept on hand. This is far superior to any thing of the kind ever known in the United States. It sows *correctly* all kinds of grain, from peas to grass seed Also, plaster-lime, salt, ashes, bone-dust, &c., &c. It is drawn by one horse, sows ten feet wide, and is furnished with an easy seat, on springs, for the driver. Drill teeth are also added to this if desired, converting it into a drill at pleasure. This machine has been recently much improved. All communications post paid will meet with prompt attention

N. B. A few responsible agents are wanted to sell the right for these machines in distant territory. P. SEYMOUR.

East Bloomfield, Ontario Co., N. Y., May 1, 1849. [5-1t]

Hussey's Reaping Machine!

THE Subscriber would respectfully call the attention of Farmers to the following correspondence in relation to Reaping Machines. It is not so much the question, at the present day, whether the Wheat can be cut with economy by Machinery, as it is what Machine should the Farmer purchase to cut his Wheat.

The subscriber will leave the annexed correspondence to answer that question, and only remark, that he builds his Machines in Auburn, Cayuga County. N. Y.. at the extensive manufacturing establishment of BEARDSLEY, KEELER & CURTIS.

☞ Those in want of these Machines are requested to send in their orders at an early day, that we may make our arrangements accordingly. All orders to be addressed to

May 1, 1849. THOMAS R. HUSSEY, Auburn, N. Y.

CERTIFICATES.

Auburn, February 17, 1847.

Mr. Thomas R Hussey:—I have used one of your Grain Reapers for three years, which cuts five feet. I can cut fifteen acres in one day, and in doing so, I gather the grain as clean as it can be done with a sickle I much prefer it to any other mode of cutting grain. J. M. SHERWOOD.

Mr. Thomas R. Hussey:—Sir: I have used your Reaping Machine for six years, and consider it one of the most profitable Machines that can be used on a farm, and could not be induced to do without one. I can cut from fifteen to twenty acres in one day, and can get lodged grain better than in any other way. I can recommend this Machine to all farmers, as a cheap and expeditious way of getting grain. Scipio, March 6, 1847.

ISAAC AKIN.

[Many other certificates, &c.. are omitted for want of space]

☞ Rapalje & Briggs, of the Genesee Seed Store and Ag Warehouse, Rochester, are agents for the sale of Hussey's Reaper, and will promptly attend to all orders.

J. W. Sherman's First Premium Grain Drill and Cultivator and Broadcast Seed Sower.

COMBINING three of the most useful farm implements. Superior to any other grain and seed planter for all kinds of grain or seeds; also a superior corn planter. It will sow broadcast, or in drills or hills, and cover grain, and sow plaster, ashes and all fine manure, broad-cast—or will drill it in the rows in such quantities as desired As a Field Cultivator it works well and is believed to be superior to any other, on all kinds of ground. It sows or plants from the smallest to the largest grain and seeds, accurately. It is the most easily managed; all the tubes can be raised or lowered, or either of them, without stopping the team. Any person capable of managing a team can use this machine and alter it from one quantity to another in one minute. It is durable, permanently constructed, and not liable to get out of order. We do not boast of inventing three drills. We happened to get a good machine the first time, which is more than can be said (truthfully) of some that have invented more, who boast of their worthless articles. We cannot tell of getting 500 made this season for Western New York; it takes time to make a good article. But we will *try* to fill all orders from Western New York and other sections, and warrant our drill the best in use.

We do not tell of selling $25 cheaper than others, for we think we can sell all we can make at a fair price, and we believe our farmers are willing to pay such a price for a good article. We promise to sell as cheap as any other that has a reliable machine, that does the work up right. All we ask of those wishing Planters is to examine for themselves. We are also ready to meet any inventor of Drills on the soil Boasting on paper is one thing; demonstration on the soil another. All we ask is a trial.

To any one wishing further information we will take pleasure in sending a descriptive sheet. We would conclude by just stating that our machine received two first premiums last fall, at the State Fair at Buffalo, on an imperfect machine, not finished. We subjoin the certificate the Committee kindly gave us:

"We the Committee on Farming Implements, No. 1, having J. W. Sherman's Field Drill and Cultivator under consideration, consider it the best implement of the class that has been presented, and have returned it as being entitled to the highest Premium.

Buffalo, Sept. 7, 1848. A. OSBORN, *Ch'n.*

I have received the Premium in three Diplomas

All communications should be sent to me at this place and will be promptly answered and attended to.

We shall want a number of agents to sell machines and rights to commence soon. J. W. SHERMAN.

Ontario, Wayne Co., N. Y., April 15, 1849. [5-tf]

An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock, crops in ground, and farming utensils. &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him. Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester

[5tf] JOHN OGDEN DAY.

Hathaway's Patent Fuller and Cleaner,

FOR Cleaning all Kinds of Grain, Clover and other Seeds Patented July 5, 1848. These Machines embrace most essential improvements and have been thoroughly tested by many intelligent wealthy farmers in different parts of the State, who, speak of their operation in the hi hest terms of praise, and express their entire satisfaction with them.

Hathaway's Huller and Cleaner is warranted to Thresh and clean Wheat, Barley, Oats, Rye, Peas, Beans and Buckwheat without injuring the berry. It will also thresh and clean from the straw fit for use or market two bushels of CLOVER SEED per hour, on an average, without rotting the clover straw. Timothy, Mustard, and other small seeds can be cleaned with it, with unprecedented speed and celerity.

These machines will make a better and faster separation than any others now in use, and a saving of more than 150 per cent. in the expense of cleaning clover seed and in the saving of the seed compared with any other.

They are cheap in price—simple in construction—durable in materials—easily kept in order—handled or removed. There is nothing now in use resembling, or that can compete with them.

They can also be used as Fanning Mills, by hand power, in a barn or elsewhere.

Refer to the gentlemen whose names are attached to the following certificates. Many others might be added if deemed necessary; but those named have the machines in use and know what they recommend.

CERTIFICATES.

I hereby certify that I have used one of Hathaway's machines for three years past, and have thrashed and cleaned from three to four hundred bushels of wheat per day and have no hesitancy in saying that they will thrash and clean from three to four bushels of clover seed per hour. I have thrashed and cleaned eighteen bushels in five hours. I confidently recommend them to my fellow agriculturists.

Rock Stream, March 1, 1849. HORACE HENDERSON, J. P.

Mr. B. G. H. Hathaway—Dear Sir: The machine I purchased of you in November last, operates to my entire satisfaction. I have thrashed and cleaned from the straw twenty-five bushels of clover seed in a day; and from the chaff, five bushels per hour—also, from the straw, three bushels per hour. In thrashing and cleaning of grain, it works admirably.

Canandaigua, March 7, 1849. REUBEN J. SUTHERLAND.

Mr. Hathaway—Dear Sir: The machine I purchased of you, in December last, operates as you recommended; I have thrashed and cleaned from the straw, from fifteen to eighteen bushels of clover seed per day on an average; also, in thrashing and cleaning of grain, it gives good satisfaction SOLOMON ERNST.

Lockport, Feb. 18, 1849.

Applications for the right to construct and vend these machines in any part of the United States, as well as all inquiries and applications for machines will be attended to as promptly as possible. B. G. H. HATHAWAY.

Rock Stream, Yates county, N. Y., April 18, 1849.

Monroe Nursery, on the Ridge Road.

THE contract between the subscriber and Naaman Goodsell, for the cultivation and management of the Monroe Nursery being now rescinded, and the relation growing out of it dissolved, the undersigned is now prepared to execute orders for trees, shrubbery, &c.

The undersigned is determined by his industry and attention to business, and by the care he shall use in cultivating the different varieties of fruits, to merit the confidence of his friends and the public.

The Monroe Nursery has been favorably known for a great many years, and has been in the possession of the subscriber for the last five years, during which time he has been to an enormous expense in refitting and restocking the premises with all the most desirable and modern variety of fruits. He solicits a share of the public patronage. CHARLES POWIS, Proprietor.

Greece, April 5th, 1849. [5-tf]

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD, GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1, 1849.

The Celebrated Horse Morgan Eagle!

THIS truly celebrated Horse will stand for Mares this season, commencing April 30th, at A. S. Davis', in East Rush, on Mondays and Tuesdays; at Sherwood's Tavern in Pittsford on Wednesdays; at Peter Culver's, in Mendon on Thursdays; and at Richard Peck's, two miles east of Lima village, on Fridays and Saturdays.

MORGAN EAGLE was purchased in the fall of '47, in Tunbridge, Vt., by J. Henderson, at a great price, for the express purpose of improving the stock of Horses of this country. He is about 16 hands high and well proportioned; is a bright bay, and for symmetry and action cannot be surpassed.

Morgan Eagle and the celebrated trotting Mare Lady Sutton, of New York, were sired by Old Morgan Eagle, of Vermont.

PREMIUM!

We will award a premium of $25 for the best Colt sired by Morgan Eagle this season Competitors for the premium must exhibit their Colts on the 2d Tuesday of October, 1850, at East Rush. Judges to be selected by owners of the Colts.

HENDERSON & AUSTIN.

Honeoye Falls, April 23d, 1849. [42m]

Albany Seed Drill and Corn Planter.

THIS is in form like a barrow. The operator taking the handles walks off erect. It makes its furrow, measures the quantity of seed, space the distances between the hills, covers the seed, and completes the whole work at one operation. It can be used by one man, or with a man and a horse, as the state of the ground may require.

For drilling in small seeds for root crops it is not excelled. As all such seeds are sure to be dropped by the action of revolving brush over-plates, with holes in them of the proper size, thereby dropping carrot, parsnip, salisfy, &c., with equal precision, whether in large or small quantities. A large number were made and sold the past season with entire satisfaction to purchasers. In several instances from 10 to 13 acres per day of corn were planted by one man and a horse in the most perfect manner.

The manufacturer has been awarded the highest premium and diploma by the New York State Agricultural Society. Also by the Mass Charitable Mechanics' Association and the Worcester Co. Mass. Mechanics' Association. The subscriber has made some important improvements in the machine, and offers it wholesale and retail at the Albany Agricultural Warehouse and Seed Store, No. 369 Broadway, Albany. ☞ Catalogues gratis.

HORACE L. EMERY.

Albany, March 1, 1849. [3-1t]

Erie County Nursery, Buffalo, N. Y.

THE Proprietor of this Old Establishment, offers for sale this spring a large and fine assortment of Fruit and Ornamental Trees Flowering Shrubs, &c., at wholesale or retail, and at low prices.

Our stock of Fruit Trees embrace the leading and best sorts now cultivated, mostly propagated from bearing trees, growing upon our own premises, and are vigorous and thrifty. The Northern Spy Apple (new ?) we have cultivated in our collection for nearly twenty years, and sell them the same price we do other varieties, when an assortment is ordered. Our stock of English Cherries, (embracing about 40 varieties,) is very large, and the trees cannot be surpassed in size or beauty of growth.

Our whole stock of trees have been propagated with great care and will be sold on the most reasonable terms. Nurserymen will be supplied at a great discount from catalogue prices.

All orders will meet with prompt attention and every article will be distinctly labelled, securely packed, and forwarded agreeably to order.

Catalogues furnished gratis, on application.

A. BRYANT & SONS.

Buffalo, N. Y., April 2, 1849. [4-2t*]

Rochester Commercial Nursery, East Avenue.

THE Subscribers offer for sale this season a fine assortment of FRUIT TREES, comprising the best now cultivated. They are very thrifty, and will be sold at wholesale or retail for cash or approved credit at reasonable prices.

NORTHERN SPY, EARLY JOE, HAWLEY and all other choice varieties of apples at *regular Catalogue Prices.* ☞ We do not charge extra prices for fruit trees because the varieties are first rate, and we endeavor to cultivate none other.

BISSELL, HOOKER & SLOANE.

[3-3t] City Office No. 8 Arcade.

Rochester Novelty Works.

WE are manufacturing a great variety of SHELF HARDWARE and heavy goods in this line, which we keep constantly on hand, all warranted, which we will sell to dealers lower than they can buy them in New York. We will also make to order any description of CASTINGS, small or large, for Agricultural Machinery, patent articles, &c., of brass or iron. We are prepared to anneal small work so that it can be finished or drilled. Our castings are very superior in style and finish, almost as smooth as if polished. All orders properly attended to, and patterns furnished if required. SMITH, BADGER & CO.,

Office and Depot No. 3 Buffalo-st.

Rochester, Monroe Co., N. Y., April 1, 1849. [4-3t]

Short-Horns at Auction.

THE subscriber being about disposing of 50 acres of his farm for public purposes. will offer at public sale 30 head of Short-Horn Durham Cattle. (being about one half of his present herd) on the 13th day of June next. at 11 o'clock in the forenoon. consisting of yearlings. two year and three year old heifers and cows ; and 11 young bulls. from 10 months to 2½ years old. Great care has been observed. and considerable expense incurred in selecting and breeding this stock with reference to purity of blood and dairy qualities. The awards of the N. Y. State Ag. Society. and the N. Y. American Institute. attest the estimation in which this stock is held wherever it has been exhibited for competition. About 8 head of the above cattle are a purchase made from E P. Prentice. Esq.. of Albany. last *May* being all the Short Horns of that gentleman. and the product of his four selected cows. retained at his public sale. These animals have the strain of blood of the herd of Mr. Whittaker. of England from whom Mr. Prentice made his principal importations. The other part of the lot of young animals partake largely of the blood of the celebrated herd of Thos. Bates. Esq.. of Yorkshire, England. from whom my importations have been derived. and are mostly of the get of my imported bull Duke of Wellington. and my prize bull Meteor. The heifers and cows are and will principally be in calf with these bulls.

For the information of Southern gentlemen who may desire to introduce Durham stock in that region. and who entertain the opinion that that climate is uncongenial to its successful propagation there. I here introduce an extract from a letter I received from A G. Sumner. Esq. editor of the South Carolinian. dated Columbia. 25th January. 1849—" The bull you sold Col. Hampton of this State gives him great satisfaction ; he is a fine animal. and I only wish you could see some 20 head of his get now in his yard. They are the most superb yearlings ever bred at the South."

Further particulars. and the pedigrees of the stock will be issued one month previous to the sale. A credit from 6 to 18 months will be given.

Troy. N. Y., April 1. 1849 [4-3t] GEO. VAIL.

The Norman Horse.

THE celebrated Norman Stage or Diligence Horse, "LOUIS PHILLIPE," will stand the ensuing season at the Spring Mills. in the Village of Union Springs. on the east side of Cayuga Lake. ten miles south west from Auburn. Louis Phillipe was raised by Edward Harris. of Morristown. N. J., from full-blooded parents. selected in France. and imported by himself. and is a perfect specimen of that class of horse. a class celeberated for their quick powerful action. great hardihood and long life. His color is a beautiful dapple gray with a splendid heavy flowing mane and tail. He is 15 hands high, 5 years old, and weighs about 1150 pounds.

THE "CAYUGA CHIEF."

At the same stand will be found this noble Horse of the Surprise and Childers' descent. A beautiful dappled bay colt just coming 5 years, over 16 hands, of powerful close make, round and admirably proportioned.

Both these horses show a fine stock of colts. Gentlemen sending mares from a distance may be assured that they will have such attention as they desire and on the most reasonable terms.

Terms—$6 at the 1st leap, and then $5 to insure, payable on the 1st of 3d month (*March*.) following.

Communications may be addressed to ROBERT B. HOWLAND, Union Springs, Cayuga Co., and will receive prompt attention. [4-4t]

The Genuine Morgan Horse, Gen. Gifford,

WILL stand for mares the ensuing season. on Mondays and Tuesdays at the stable of Geo A. Mason, two and a half miles north-east of Jordan ; Wednesdays, Thursdays and Fridays at the stable of D. A. Munro. in Camillus ; Saturdays at the stable of D. A. Munro, in Bellisle

TERMS—$10 to insure. Mares that are not placed directly in in charge of the subscribers. must be regularly returned through the season. All persons parting with mares before the usual time of foaling. will be held for the $10. Pasturage furnished by either of the subscribers for 8 shillings per week. Accidents and escapes at the risk of the owners.

We can confidently assert that in size. build and in style of action. *General Gifford* more nearly resembles the original Morgan Horse than any other stallion, except his sire, the Gifford Morgan.

The Morgans, as a breed, are so universally known and esteemed. that we deem it unnecessary to repeat their merits. General Gifford was sired by the Gifford Morgan. his dam a pure Morgan. A full description of the origin of the Morgans, and pedigree of Gifford Morgan, may be found in the Albany Cultivator for 1846 page 19.

April, 1849. [4-3t] MUNRO & *MASON*.

Agricultural Implements and Mechanics' Tools.

I AM now manufacturing a few of those MANURE FORKS so much sought after by the FARMERS. Also, *Hay* and *Straw Forks* of all kinds warranted. Also, a full supply of *Spades, Shovels. Hoes, Axes. Scythes.* and almost every kind of MECHANICS' TOOLS always can be found at my store. No 3 Buffalo-st., first building west of Main-street Bridge, Rochester.

[4-3t] R. D. BARTON.

The Imported Horse, Consternation,

WAS bred by MATHEW HORNSBY. Esq. of Stiltenham, Yorkshire. England, in the year 1841. He was imported by T. C. Arbott. Esq, in the year 1845. He is now owned by J. B Burnet. Esq. of Syracuse. and will serve a limited number of mares the ensuing season at his own stables near the village of Geddes. two miles west of Syracuse. The very best pastures. with plenty of water and the most secure fences will be provided for mares from a distance at two shillings and sixpence per week. No mares taken except at the risk of the owner.

Consternation is a beautiful unfading dapple brown color, stands 15 hands and 3 inches high. and is a very sure foal-getter. He is remarkable for his vigor of constitution. his developments of bone and muscle, and his intelligent, kind and docile disposition. He is compact and short legged for a thorough-bred horse. yet of a *rangey* and majestic figure. His chest and flank are deep and full. His action is graceful. but at the same time proud and commanding. But what is perhaps of more importance. he is descended through all the generations that are recorded in the English stud books from horses of great distinction and of the purest blood. There is no horse living that can boast a more illustrious pedigree. His immediate ancestors were of uncommon size and elegance of figure. Confederate. although an eminently successful race horse was kept by his breeder, Earl Fitz William, to get carriage horses and hunters. for which he proved very valuable. Curiosity. the dam of Consternation. was equally large. and even handsomer than Confederate. All his ancestors were animals of good disposition and entirely free from blemishes, so far as it can be ascertained. The following is a brief copy of his Pedigree: By Confederate; dam Curiosity. by Figaro, her dam by Waxy. Confederate was bred by Earl Fitz William ; got by Cornus, by Cervantes. by Sir Peter. by High Flyer. by King Herod. by Flying Childers. Figaro was got by Hap Hazard, by Sir Peter, out of *Mrs*. Harvey, by English Eclipse, &c.. &c.. &c.

As to the character of Consternation's stock. reference is offered to Ira Hitchcock. Esq., Oneida Castle. Henry Rhodes, Trenton, A Ford or John Best, Rome, and to farmers generally in that vicinity.

Terms—$5 in advance, and $5 additional if the mare is got in foal. [4-3m] J. B. BURNET.

The Valuable Horse, Young Morgan,

WILL stand the ensuing season on Mondays, Tuesdays and Wednesdays at the stable of the subscriber near Clyde ; on Thursdays at the stable of Abner G. Gillett. in Junius ; on Fridays and Saturdays at the stable of J. Landon, in Lyons.

Terms---$8 to insure a foal.

Young Morgan is of a bright bay color, without white, 16 hands high, and weighs 1200 pounds He will be four years old next July. and is not surpassed by any horse in this State. He was sired by Morgan Tiger. owned by Wm. May. of Palmyra ; his dam was Noah Yates' Beauty, got by Austin's Duroc.

Clyde, April 1, 1849. [4-3m] J. M. GILLETT.

BOOKS ON AGRICULTURE, HORTICULTURE, &c.

For Sale at the Office of the Farmer.

The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture. Horticulture. and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

American Farmer's Encyclopedia. $3 50 in leather—cloth $3.
American Shepherd. by Morrell. $1.
American Agriculture. by Allen $1.
American Poulterer's Companion, by Bement. $1.
American Veterinarian. by Cole. 50 cents
Buist's Kitchen Gardener. 75 cents.
Buel's Farmer's Companion. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents
Downing's Fruits and Fruit Trees of America. $1 50.
Domestic Animals. by R. L. Allen. Cloth, [illegible] cts. ; paper, 50 cts.
Farmer's and Emigrant's Hand-Book. $1.
Fruit Culturist. by J. J. Thomas. 50 cents
Gardener's Farmer's Dictionary. $1 50—leather, $1 75.
Horse's Foot—and how to keep it sound. 2[illegible] cents.
Johnson's Agricultural Chemistry. $1 25.
Loudon's Ladies' Flower Garden $1 25.
Liebgig's Agricultural Chemistry. (new edition) $1—paper. 75 cts.
Liebgig's Agricultural and Animal Chemistry, (pamphlet editions.) 25 cents each
Parson's on the Rose. $1 50. Prince on the Rose. 75 cents
Rural Economy. by Boussingault. $1 50.
Stable Economy, by Stewart. $1.
Scientific Agriculture. by Rodgers. 75 cents.
Smith's Productive Farming. 50 cents.
Treatise on Milch Cows. 38 cts. Treatise on Guano. 25 cents.
Youatt on the Horse. (new edition.) $1 75.
Youatt on the Pig. 75 cents.
Catechism of Ag. Chemistry and Geology. 25 cents.
The Gardener and Complete Florist. 25 cents.
Knowlson's Comple Farrier, or Horse Doctor. 25 cents.

*** These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired

Address to D. D. T. MOORE, Rochester, N. Y.

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[In consequence of the continued absence of our engraver we are unable to give several illustrations intended for this number.]

Market Prices of Agricultural Products.

New York, April 27—7 P. M.

Flour & Meal—Foreign news had a favorable effect upon the market for Western flour and the sales in most instances were at at an advance of 6¼c. per bbl.; the range is 4.75 *a* 5.12 for common to good brands of State and mixed to very good Western. Pure Genesee 5.62 *a* 75. Sales 4,000 bbls. Included in sales were 1.000 good Ohio at 5.18 and 1100 do. common State, part Troy at 4.75 Rye flour steady. Sales 400 bbls. at 2.75*a*2.81. Meal firmer. 300 bbls. Jersey sold at 2.18 afloat.

Grain—Fair milling demand for wheat; prices below the views of holders. Sales 400 bu. Genesee at 1.25. 1.000 Ohio on private terms and 6.000 white Pa. at 1.18. Sale of 7000 bu. Rye at 57 delivered. Barley—sales 4,000 bu. prime two-rowed, part on private terms and part at 63¾. Corn about 2c. better. Some 20,000 bu. sold at 50c. for heated N. O., 54 *a* 56 for mixed to a very good white southern. Oats without change.

Provisions—Pork dull and heavy. Sales 400 bbls. at $10.12 *a* $10.18 for mess, and $8.25 for prime. 500 bbls. sour sold at $9.25 and $7.25 for mess and prime. Beef, no change, with small sales. Lard is in fair inquiry. Sales 500 bbls. and tierces at 5¾ *a* 6⅛—the latter for strictly prime. Butter and cheese dull, and without change.

Rochester, April 27, 1849.

In Flour there is hardly any thing doing. One or two sales of 2 or three hundred bbls. have been made during the past week at $5.

Grain—Wheat $1.08. Corn 44c. Rye 53. Oats 29.

Seeds—Clover $3.75 *a* $5. Timothy $1.50 *a* $2.25. Flax $1.

Provisions.—Pork (mess) $12 per bbl. Beef $4 to $5 per cwt.—mess $7 *a* $8 per bbl. Butter 10 *a* 12 cts. Cheese 6c. Eggs 9c.

In Albany, April 27, flour was quoted at $4.75 *a* $5 for common to good State and Western—and $5.50 *a* 5.75 for pure Genesee. Oats 36 *a* 37 cts.

Agricultural Warehouse and Seed Store at Buffalo.

AT the request of numerous friends, we have opened an Agricultural Warehouse and Seed Store, and have made such arrangements as will enable us to keep on hand a large and full assortment of implements of any useful kind.

We have also arrangements for Trees and Seeds equal to any other establishment in the Union. Orders and patronage solicited Manufacturers are requested to send us samples of their implements and machines.
T. C. PETERS & BRO.,
Corner Washington and Exchange-sts.
Buffalo, Jan. 1, 1848. [1-5t]

Back numbers (and volumes) of the Farmer promptly supplied to all new subscribers.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c.

The Tenth Volume of this Journal will commence on the 1st of January, 1849. In making this announcement to his Agents and the Farmers and Fruit Culturists of the country, and again asking their support in behalf of the work, the Publisher has the satisfaction of stating that the Genesee Farmer now has a circulation exceeding, by several thousand, that of any similar periodical published in America. This fact, alone, furnishes abundant evidence of the *real value* and *superior merit* of the work—for no journal, however cheap, can become and continue so universally popular, unless actually worthy of the substantial support of an intelligent community.

The high reputation which the Farmer has acquired throughout the United States *will be maintained*, and if possible *augmented*, during the ensuing year. To accomplish this object, no effort or expense will be spared by the Editors or the Publisher. Their aim is to furnish a *reliable* and *independent* journal — one which shall avoid and condemn *humbug* in whatever guise it may appear, and impart correct practical and scientific information on all subjects pertaining to Agriculture and Horticulture.

It will be issued on NEW AND CLEAR TYPE, and superior paper, and printed in the best style of the art—neat and correct. Its ILLUSTRATIONS — embracing Portraits of distinguished friends of improvement on steel and wood, and Engravings of Farm Buildings, Improved Implements, Domestic Animals, choice Fruits, Trees, Flowers, &c.,—will be more numerous and expensive than those of any preceding volume. ☞ Each number will contain at least **24 Royal Octavo Pages!** making a large and handsome volume of several hundred pages at the close of the year.

The Genesee Farmer is, beyond dispute, *the cheapest Agricultural and Horticultural Paper in the World!* — and the Proprietor is determined to make it the neatest and best. We confidently ask for it that support which it *merits* from the Farmers, Gardeners and Fruit Culturists of the United States.

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STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—JUNE, 1849. NO. 6.

WOOL AND WOOL-GROWING IN THE U. STATES.

Our excellent friend, T. C. Peters, Esq., of Buffalo, in his "Wool Grower, and Magazine of Agriculture and Horticulture," has indulged in some speculations on the "amount of wool for the coming clip," (1849,) and the present number of sheep in the United States, which differ somewhat from our own views on the same subject. He assumes that, inasmuch as the number of sheep in the State of New York increased about 25 per cent. from the census of 1840 to that of 1845, all the other States in the Union have, on an average, done as well. The fleeces of this year are estimated to weigh two and three-fourth pounds each, throughout the country. He supposes that the census of 1850 will show "about thirty millions of sheep in the United States." Had we not seen the kind of sheep, and of sheep-husbandry that prevails at the South, as well as at the North and West, our opinion would not differ materially from that of the "Wool Grower," aforesaid. But "with the lights before us," if the official returns of next year exhibit the existence of more than 27,000,000 sheep this side of New Mexico, we shall be disappointed; and still more so if the average weight per sheep exceeds 2½ lbs.

In about half the States, wool is clipped without washing the sheep, and weighed in the dirt. There is in Georgia, South Carolina, Alabama and other Southern States so much of foreign matter in wool that it shrinks nearly half in cleansing; and it is regarded as no better than South American wool, which is sold in New York at from 7 to 9 cents a pound. There is a woolen factory within six miles of this city, (Augusta,) that annually consumes a good many thousand pounds of both foreign and native wool; and it seldom, if ever, pays over 12 cents for the latter. All sheep run in the forests the year round, and are usually black with burrs. Many shear them every six months to save a little more wool from being torn off in briars and bushes. They are generally kept not so much for their fleeces as for their meat and tallow.

No branch of productive industry in this country, is susceptible of greater extension and improvement, than that of growing wool. In connection with raising lambs and fat sheep for market, the production of wool can be made profitable in every State in the Union. Fat lambs sell in this city at from two to three dollars a head. A friend has raised and sold over eighty at an average of the price last named, this spring. He is an exception to the general rule, and takes good care of his sheep—some die from an apparent excess of fatness. As a general thing, sheep are quite healthy in the "piny woods." Hungry, thievish dogs are the principal impediment in the way of keeping sheep in this region, although one would have to grow white clover, (which is indigenous,) grasses, peas, rye, oats, corn, turnips or potatoes as food, at least six months in twelve.

The longer we investigate the capabilities of the South for producing cheap food for domestic animals, the better satisfied we become that stock-raising and wool-growing can be made profitable. In no other quarter of the Union are fine sheep, cows, horses, mules and swine sold at so high a figure. The climate is about like that of Spain—being perhaps a little colder here in the mountains, than there. In the Highlands of Texas, stock-raising is beginning to command particular attention. Such is not the case in any of the Southern Atlantic States.

Somehow wool-growing appears to prosper best where there is a dense population. France, with 36,000,000 souls, on a comparatively small territory, keeps 40,000,000 sheep. According to McCulloch, it had 39,000,000 at the census of 1840. England has about the same number in proportion to population; as have also the people of this country. We have a small excess, as compared with France. But our facilities for sheep husbandry, when compared with those of Great Britain and the French Republic, would seem to warrant our trying to keep at least two sheep to every inhabitant—or over forty millions.

The consumption of cotton, however, increases much faster than that of wool. As the one is a very *exhausting*, and the other an *improving* crop, we hope the "Wool Grower" will do good service in extending a branch of business which is generally so much neglected. Our friend Peters must remember that "this is a great country;" and that he must not take New York, Ohio, Vermont and Michigan, as a fair average of the States, neither in the yield per fleece, nor in the increase of sheep since 1840.

A Mr. J. F. Nelson, of Weehaw, Jefferson Co., Va., in a letter to the editor of the "Plow, Loom and Anvil," states that he "has weighed fleeces of the flock of Richard K. Meade, and that two bucks about 16 months old, clipped *thirty-two and a half pounds of wool*, equal to ¾ or ⅞ merino." Allowing this to be half dirt and gum, the yield was large. He does not say whether it had been washed or not.

PREMIUM CROPS.

REQUISITIONS OF THE N. Y. STATE AGRICULTURAL SOCIETY.

THE list of premiums offered in New York has just been published. The minimum of crops fixed upon, *under* which no premium is to be awarded, is—of winter wheat, not less than 40 bushels per acre; spring wheat, 30; Indian corn, 80; barley, 40; rye, 35; oats, 70; buck wheat, 25; peas, 25; potatoes for the table, 200; potatoes, field crop, 300; ruta-bagas, (60 pounds to the bushel,) 400; mangold-wurtzel, (same weight,) 400. We don't see that any premium is offered for hay.

These quantities being fixed as the minimum produce, when we look at the average crop of the whole State as her official returns show, what a wide margin we find to be filled up by higher skill and heavier manuring, as thus: in 1845, according to returns from each county by State authority, the averages were as follows: winter wheat averages 14 bushels per acre; oats, 26; barley, 16; rye, 9½; Indian corn, 25; buckwheat, 14; peas, 15; beans, 10; and potatoes, 90. Thus it would seem that the crops in most cases do not come to a third, in some cases not a fourth of the *smallest quantity*, which the Society have determieed should be distinguished by a premium. This might leave some doubt about agricultural progress in the Empire State, were it not that the State Society, by its President, last year, reported "that the State of New York is improving its agricultural condition *every year testifies*." If it be improving every year, and has yet reached only to the averages we have stated—14 of wheat, 25 of corn, 9½ of rye, 90 of potatoes, &c.—how low must it have been 25 years ago? Yet in 1821 Earl Stimson of that State, made throughout his farm—of oats, 60 bushels per acre; Indian corn, on 8 acres 112 bushels; on 10 acres, 90; spring wheat 34; barley, 60. And we have accounts before the revolution, of 11,000 bushels of potatoes from 16 acres—being 687 bushels to the acre, on new red land on the Hudson river; third year, 8,496 bushels of potatoes—being 531 bushels to the acre; fourth year, in wheat gave 37 bushels to the acre; fifth year, in barley gave 730 bushels, or 45 bushels to the acre; sixth year, 630 bushels of peas, or 39 to the acre. All this was without manure, and that by a miserable system of the most exhausting rotations, as—potatoes, wheat—potatoes, wheat—barley, peas; all in six years! Is it to be wondered at, that the crops throughout the State have been brought down to the miserable averages we have stated? Still we are told, on the highest authority, that the condition of New York agriculture is improving, as "every year testifies!"—and who knows how low it might have gone, if it had not been for the premiums distributed from year to year?

After all, these facts bring to mind the doubt once expressed by one of the wisest, wealthiest and best men the Empire State ever boasted—JAMES WADSWORTH. Said he —"I am doubtful as to the expediency of small premiums for cattle. I think the raising of these animals may be left to self-interest. Suppose you take a hint from Napoleon, and offer *very liberal* rewards for agricultural implements;" and might not crops be left to the dictates of self-interest as well as cattle? The Agricultural Society of New York appears to entertain a very different opinion, for while they have offered some 150 or 200 premiums for cattle and sheep—and nearly 100 of the amount of $10 and upwards, many as high as $20 and $25—under the head of "*Farm Implements*," $10 is the highest for any single one, and that only in one case—a thrashing machine. For the others they offered a "dip," and sometimes $2 or $3, or $5, besides the "dip;" but, done by such high authority, it must be "O. K."

WE copy the above from the May number of "The Plow, the Loom and the Anvil," (conducted by J. S. Skinner & Son, of Philadelphia,) that New York farmers may see what is said and thought of their progress of improvements in other States; and for the purpose of making a few comments.

The fact that the Executive Committee of the N. Y. State Society refuse to pay any premiums on grain crops, except in cases where the product is unusually large, indicates a disposition to curtail expenditure in that direction, that more money may be offered to encourage improvements in other departments of rural industry. The writer of the above criticism seems not to be aware that New York is rather a *grazing* than a *grain-growing* State; and that the "improvement in its agricultural condition," to which the late President of the Society referred, is more conspicuous in the increase of its dairy products and flocks of sheep, in its richer pastures and meadows, than in its crops of wheat, corn, rye, oats and barley. It would not be difficult to show that the eleven hundred thousand cows now annually milked in New York, yield about twenty millions of dollars worth of milk, veal, pork, butter and cheese. This, certainly, is a great improvement on what was done when the State Society was organized.

The number of farmers in New York, and its strictly rural population, increased very little from 1840 to 1845; yet the number of sheep kept in the State was augmented 25 per cent. Their yield of wool per head was also increased. In regard to the census returns of the bushels of grain harvested in 1845 or '44 as the case may have been, they are indeed not creditable to the farmers of the Empire State. In addressing assemblies of farmers at the South, we have frequently been met by the statistics of New York, in a way not flattering to the pride of a native son of that enlightened and populous commonwealth. The truth is, as the writer of this believes, that those that till the earth in New York go over too much surface as a general thing, and sadly neglect to apply lime and plaster to their land; to turn in grass, clover and other green crops, and otherwise fertilize the soil. There are too many farmers that take no agricultural papers; who keep aloof from all agricultural societies; and who never read a book on rural affairs. However unconscious of the fact, such men are gradually impairing the productiveness of the land which they plow, sow, plant and hoe. They have no idea of the substances in the soil which are necessary to form a large crop of wheat, corn, barley, oats or potatoes. Hence, the elements of all cultivated plants are wasted and lost in many ways, which they do not understand, nor appreciate. Too many farmers are more anxious to own large fields and many of them, than to drain, subsoil, manure, and make rich a smaller estate.

Our New York friends are probably not aware how much their brothers of the plow are doing in other States, by deep tillage, the use of ashes, guano, stable manure, lime, forest leaves, and by turning in green crops, by soiling domestic animals, irrigation, &c., &c.., to improve their cultivated fields. The agricultural statistics of your "Model State," are studied by thousands quite as closely as by the veteran editor of the "Plow, the Loom and the Anvil." We feel not a little anxiety that the official returns of 1850 shall prove that the wheat, corn, oat and potato crops of New York have greatly improved within the five and ten annual harvests that will have immediately preceded the census of next year. As the crops of this season, 1849, will have to be given in, provided the marshals go round before the harvest of corn and potatoes, try and make good showings if you can.

Let your corn and potatoes have all the ashes, bones boiled to a powder in strong lye, adding to the compound a little common salt and lime, which you can well procure. Mix pulverized charcoal and gypsum with the contents of the vault under the privy, and scrape the stables, barn-yard and hog-pen anew, and do your best in plowing, manuring, hoeing and cultivating your summer crops.

DEVON CATTLE.

Among the improved breeds of cattle in this country, the Devons are held in high estimation, and probably the most generally admired. As a distinct breed of neat cattle they possess several features peculiar to themselves, of which they are very tenacious—retaining them in a great degree, even through their distant crosses with other breeds, and particularly our native stock. The color of pure Devons is always red, varying to a dark mahogany. The dark color is generally most admired, although the light shades are equally profitable. There is occasionally a little white on the belly, which is more common with the heifers than the steers, and the cows udders are frequently white. The hairs which form the brush of the tail are very remarkable; on calves they are a darker shade than the other parts of the body, but always turn white before the animals are three years old. The hide is thin, soft, and mellow to the hand—the hair silky, and frequently curled. The horns are long, fine and smooth, and frequently yellow at the root when young; the muzzle and round the eye yellow, with a bright, keen and active countenance.

The Devons are fine boned, clean limbed, and very active—resembling in cattle what is called blood in horses more than any other stock. They are good feeders, and make as much beef in proportion to the food consumed as any other cattle. Their beef is also of the best quality, being what fleshers call marbled (or well mixed with alternate fat and lean;) and they always prove well when dressed—weighing heavy to their appearance. In size they are about the medium of neat stock. When dressed the cows weigh from 6 to 800, and oxen from 10 to 15,000 lbs., grass fed.

The bulls of this breed are usually inferior, in size and beauty, to the oxen; but his stock is the best proof of the value of a sire, and not his appearance. For labor we believe the Devons are not excelled by any other breed—and their uniformity of color and build renders them easily matched. They are very active, docile and tractable, as well as tough and hardy, and when carefully used will perform much labor from four to eight years of age, without diminishing their size or aptness to fatten.

As milkers the Devons are similar to our native cows, but the quality of their milk is always rich. On this point Mr. Allen, author of "Domestic Animals," (published in 1848,) remarks:—"The cows invariably yield milk of great richness, and when appropriately bred, none surpass them for the quantity of butter and cheese it yields. Mr. Bloomfield, the manager of Lord Leicester's estate at Holkham, has, by careful attention, somewhat increased the size, without impairing the beauty of their form, and so successful has he been in developing their milking properties, that his average product of butter from each cow, is 4 lbs. per week for the whole year. He has challenged England to milk an equal number of cows of any breed, against 40 pure Devons, to be selected out of his own herd, without as yet having found a competitor."

We believe the Devons were first introduced into Western New York about twenty-five years ago, by Wm. Garbutt, Esq., of Wheatland. In 1835 or 6, Mr. G. stocked his farm in Sheldon (in charge of Mr. Beck, an experienced Scotch farmer,) with a portion of his home stock. In 1838 or 9, Mr. Vernon, of Roanoke, Genesee county, imported a bull and two heifers from the best stock in Devonshire, England. Messrs. Garbutt, Beck and others, bred from the Vernon Bull (now known as the Dibble Bull,) and produced many valuable animals. This stock is now scattered over much of Western New York, and some of it in Michigan and Canada, so that purchasers can be accommodated with thorough bred Devons, not inferior to any, at much less expense and trouble than to import them from England.

N. Y. STATE AG. SOCIETY.—PROF. JOHNSTON.

We are pleased to learn that Prof. J. F. W. Johnston, of Durham, England, widely known for his successful labors in the cause of Agricultural Improvement, has accepted the invitation of the Society to deliver the Annual Address at Syracuse. We doubt not this announcement will determine many to attend this great Festival of the Farmers, who otherwise might not have done so. The distinguished gentleman will, doubtless, give to his hearers some account of the improvements that are in progress in Europe, in very many of which he has borne an important part. We anticipate great good from the visit of Prof. Johnston to this country. He designs, we understand, to spend a year or more before he returns, and he will doubtless devote much of his time in delivering lectures to Societies, &c., and it appears to us that our State and County Societies can in no other way at the present time appropriate a portion of their funds more usefully, than by securing his services in that capacity.

The officers of the State Society are entitled to the thanks of the friends of Agriculture, for their efforts to secure the services of this distinguished Chemist, and we trust the result will prove in the highest degree beneficial to the Agricultural interest.

We have watched with no little interest the proceedings of the State Society—and we believe we but express the united sentiment of the farmers who are interested in the true advancement of the Agriculture of our State, when we assert that the manner in which the Society has been conducted for the last few years, has been in every respect well calculated to sustain and advance this great interest of our country. The operations of the Society have been conducted with a single eye to the public good. No plans of mere theorizing have been put forth—but objects of substantial and permanent usefulness are presented, and untiring efforts are made to bring subjects of deep interest to the farmers, before them in such a manner as to attract their attention, and enlist their energies, so that improvement shall be the result.

The influence of the Society is felt, not only in our own State, but in every portion of our Union—new State Societies are being organized, and none can foretell what is to be the effect which is to follow the efforts of our State Society. A responsibility of no light character rests upon its officers, and they need the cordial co-operation of all who are interested in the cause of Agriculture. The labors appertaining to the business department of the Society are becoming very arduous, and we doubt not the officers will make every necessary arrangement for their discharge in a manner that will continue to be satisfactory to the public, and maintain the high standing which the Society has already attained.

DESTRUCTION OF WHEAT, CORN AND COTTON IN THE SOUTHERN STATES.

Probably more than half the wheat that would have been harvested this season in the States south of North Carolina, has been destroyed by the succession of severe frosts which began on the night of April 15, and continued nearly a week. Some fields examined by the writer, were so forward as to be out of blossom. The price of cotton was so low last year that an unusual breadth of land was sown in this grain. About two-thirds of the cotton in the principal cotton growing States was up, and killed dead. Where seed could be had, it is planted anew. The prospect is poor enough for this important crop. Corn was killed down; but some grows again, and in some fields it is re-planted. Peaches, grapes, figs, and other fruits are mostly destroyed. More snow fell in Augusta, Ga., on the 15th of April than had been seen before in several winters. In many places the foliage on oak trees was killed; and tender trees, like pomegranates and lagerstræmias were smitten to death. Hessian flies, which are very abundant, came out perfect insects, twenty miles south of this city, on the tenth of April. *Augusta, May* 2, 1849.

CHESS—TRANSMUTATION.

We have before us eight well written communications on the transmutation of wheat into cheat or chess. It is a subject we dare not again open our pages to, as it is interminable, and we almost regret having published Mr. W.'s article in our March number.

Let us premise that we think the transmutation of *vegetable*, *animal*, or any *material* substance, is philosophically, physically and mathematically impossible—and that opinion fire can't burn out of us, until we can see a plain and indisputable instance to the contrary. And yet we admit there are some facts which cannot be explained, that seem to favor that doctrine, and it requires a little *faith* sometimes to keep us from being skeptical on the subject. All of our communications are from experienced, and practical farmers, and every one takes the affirmative.

H. W., of China, N. Y., cites instances where wheat in the spring was cut to feed a traveller's horse, which came entirely chess, while the rest of the field was fine clean wheat. M. T., another instance, where a horse was tied in the corner of a fence, and eat the wheat to the length of his tether, and that was chess alone. These are not solitary instances of the like.

J. R., of Pekin, Niagara Co., says he has the ability to convince the most skeptical, and asks if the $100 premium is yet alive, or the man that offered it; as he is prepared to carry off the prize, and desires us to name some one in that county to call on him to have it settled at once. We take that bet.

J. A., of Yates county, states some strong reasons which he thinks are conclusive; but we think his reasoning unphilosophical when he applies it to the planting of a vineyard of choice grapes, which turned to wild ones. If the seeds were planted, then a variety might be expected, but not a different *order* and *genus*—and no one will pretend but what cuttings, or rooted vines, will produce the same as the parent plant forever.

L. R., of Clyde, relates three very strong cases, which, if there were no deception or hidden causes to account for them, would be a *settler* to our views on the subject.

"A subscriber," of Oakfield, is rather severe on Mr. W., and asks if pigeons are more apt to disgorge chess on ashes where logs and stumps have been burned, than other places, as those places are usually full of chess. He also says that clean seed, that had chess growing among it, is more liable to produce chess than that that had not any, and therefore not impregnated with the pollen of the chess—a suggestion that may be worthy of notice, and as far as we are informed, is original with our correspondent.

And last, though not least, comes our friend E. F., of Rose, Wayne Co., with several cases of transmutation, which are difficult to account for, without occular examination. He winds up with the "proof positive," of the following certificate, duly sworn and subscribed:

This may certify that I, Simeon J. Barrett, of the town of Rose, county of Wayne, about twenty-four years ago, in the fall of the year in picking over some wheat to thrash for seed, pulled out some chess and found it grew in a wheat head of the usual length, and seven kernels of chess grew out of one side of it, about one-third of the way up. In July, 1848, I was passing through a field of wheat and saw a head of wheat with chess on it; I plucked the head, which was of usual length, and about half way up the head, there grew out eleven kernels of chess. Simeon J. Barrett.

The above statement was verified before me the 7th day of April, 1849. P. Guitchell, Justice.

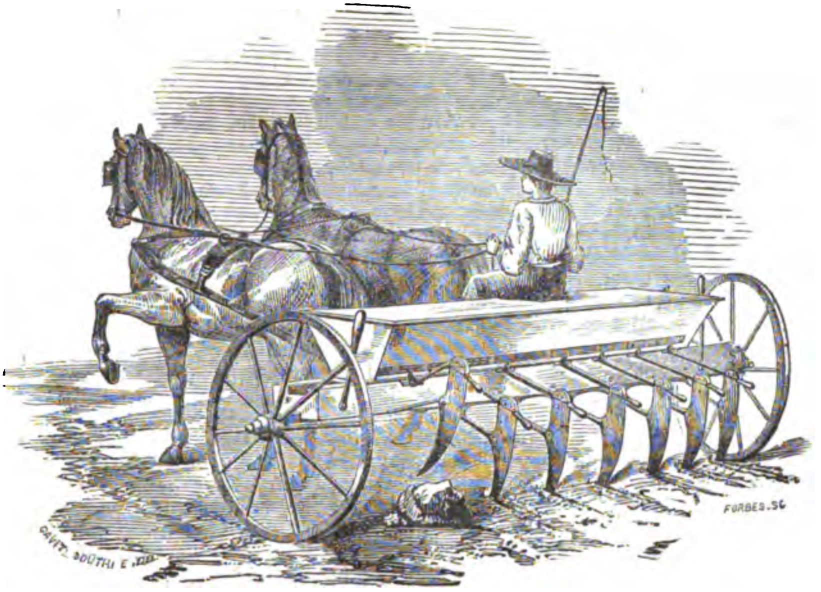
Now, in order to set this subject at rest, exhibit to us this *lusus naturae*, this *rara avis*, and we will cry *pecavi*, and give a premium for a knot-hole to creep into, and forever after hold our peace.

We must beg of our correspondents to excuse our not giving their entire articles, and to let this mooted and unsettled question rest until some proof can be adduced beyond cavil or dispute. *

AN EXAMPLE FOR THE BOYS.

Many of our youthful readers have responded to our offer in the March number, by sending lists of new subscribers. The zeal manifested shows that there are some boys in the country who desire to improve their minds, and become men in the fullest sense of the term. It has afforded us real pleasure to hear from our young friends. The orthography and penmanship of their letters, in most instances, are quite creditable. Among various similar letters received from boys residing in this and other States, we copy the following from Master Wm. H. Hunt, of Geneseo:—

"After I saw your offer to the boys, I started out to obtain subscribers to the Genesee Farmer, and in a short time I got five. I am satisfied from my inexperience, and the success attending such feeble efforts, that if but one boy in each School District in New York was to engage with zeal worthy of the cause, in obtaining subscribers for your useful journal, that your list of subscribers would be greatly increased, and many minds stored with practical knowledge, that now are filled with worse than useless trash. I find it very agreeable to go on this business, as it brings into practice my lessons in arithmetic, in making change with the subscribers. I intend to add some each year, as I have eight years of minority to labor in this pleasant vineyard, if my life is spared. I herewith enclose $2 for five subscribers. * * * You may send me Johnson's Catechism of Agricultural Chemistry and Geology."



PALMER'S WHEAT DRILL.

PALMER'S WHEAT DRILL.

Of the various improvements in grain drills, this is one of the most recent. It is designed to combine, in a simple, substantial and yet cheap form, the advantages of the numerous English and American drills heretofore in use. We extract the following from the inventor's description of its construction and operation :—

"The frame-work consists of a simple axle, four by six inches, and a pole, on the former of which is placed a box or hopper. One simple distributor driven by a cam wheel and friction rollers, conveys the grain from the hopper into the several drills, through hollow braces or levers, and the quantity in each drill cannot vary a spoonful in sowing five bushels. Each drill is independent of the others, and either can pass over a stone or other obstruction eighteen inches high, without interfering with the operation of the other. It will drill perfectly, a strip of land of any width, from four inches to the entire width of the machine, and will work on land of any shape, without wasting the grain. All the teeth or drills can be raised or remain in a position eighteen or twenty inches from the ground, rendering it perfectly safe to drive over the roughest places. By the most simple movement, the distribution of seed can be stopped in an instant, or continued with the same ease. All the injury the drill can sustain by coming in contact with roots or fast stones, is the breaking of a small wooden peg, which is easily replaced. The machine is so contrived, that by a very simple movement, the interior work is exposed to view, and at all times, the grain, while passing into the drills, is in full view of the operator, so that he can detect at a glance, any stoppage of the grain, and at once remedy it."

A large number of these drills are being manufactured, the present season, by J. A Holmes & Co. of Brockport, N. Y. See their advertisement in this number of the Farmer.

FACTS IN BUILDING.

A writer in the American Mechanic, mentions the following very sensible facts for those who propose to construct dwellings with reference to comfort, economy, and convenience:

One fact is that a square form secures more room with a given cost for outside walls, than any other rectangular figure. Great length and little width may afford convenient rooms, but an increased expense.

Another fact is that ventilation is an essential in a human dwelling. No other consideration should exclude this. The halls, windows, and doors, should be so situated with regard to each other, that a full draught of air can be secured at any time in the summer season, by day and night, through the whole house. The stories should also be sufficiently high to afford a sufficiency of air in all the rooms. Nine feet is a good height for lower rooms, and eight for upper. Bed rooms should also be larger than they commonly are. Great injury to health is the result of sleeping in small, close apartments.

The third fact is that a steep roof will not only shed rain and snow far better than a flat one, but will last immensely longer.

The fourth fact is that a chimney in or near the centre of the building will aid to warm the whole house, while if built at one end or side, the heat will be thrown out and lost.

The fifth fact is that a door opening from the outside into any principal room, without the intervention of a hall or passage, costs much more than it saves, in the free ingress of air into it.

The sixth fact is that the use of paint is the best economy, in the preservation it affords to wood work.

The seventh fact is that if the front door is made at one side instead of the middle of the front, a partition will be saved, and for small houses this should not be forgotten, but for large houses have the main door and lobby in the middle of the house.

FARMING ON TWENTY-ONE ACRES OF LAND.

BY WILLIAM GARBUTT.

Messrs. Editors:—Many of the cultivators of the soil, who occupy large possessions, do not realize the amount of labor that can be profitably employed in cultivation; and few farm laborers are aware how small a piece of ground will afford full employment to an industrious man, and yield himself and family the comforts of life, and make them an independent home.

In illustration of these facts, I will give an account of farmer B. His farm consists of twenty-one acres: one acre of it is occupied with buildings, yards and garden, and twenty acres are for cultivation — all made productive by thorough draining and bountiful manuring. A good substantial fence all round it, but no division fences. He has 57 rods of patent fence, which is easily removed, with which he encloses one-fourth of the ground for pasture.

The farm is divided into four equal parts—5 acres in each part. First season, No. 1 is in grass, clover and timothy, for pasture; No. 2 in hoe crop — one acre in wurtzels, one potatoes, and three in corn; No. 3, barley; and No. 4 in wheat. With these crops he keeps a regular rotation each year. Second season, No. 1 is manured in the fall with all the manure that he has collected the past year, and plowed for next season's hoe crop; No. 2 is plowed in the fall for barley next spring; No. 3 (barley stubble) is sown with wheat; and No. 4 (wheat) is sown with timothy and clover for next season's pasture — which rotation he uniformly pursues.

He keeps a yoke of oxen, two cows, twenty good ewes and a breeding sow, for which 5 acres of fresh clover on a rich soil will afford plenty of pasture, provided that he does not turn into it too soon in the spring. The wheat and barley straw, corn stalks, and roots, will be ample forage for them in winter. He is industrious, economical and prudent. Every thing is well done, and in season. The ground is kept clean, no weeds being allowed to grow, not even around the fence; it is made rich by plentiful applications of manure, which renders it very productive. His wheat averages 30 bushels per acre. It will take 24 bushels to bread the family the year, (which consists of himself, wife, and four little ones,) and it will take 7 bushels for seed, which will leave 119 to sell; this, at $1 per bushel, will make $119.— His barley yields 40 bushels per acre: it will take 8 of it for seed, and 192 bushels to market, at 50 cts. per bu., will be $96. The corn averages 60 bushels per acre; the three acres produce 180 bushels: it will take 80 bushels to feed the pigs, fat the pork, and use of the family, (for they eat Johnny cake and mush,) which leaves him 100 bushels to market, at 50 cts. per bu., is $50. The potatoes and beets are all used at home. The wool of the 20 ewes averaging $1 per fleece, will be $20. They raise 20 lambs, which he sells in July or August for $20. By taking the lambs from the ewes early, the latter will get fat by fall: 15 of them are sold for $30, with which he purchases 20 ewes for next season's keeping — and he has 5 fat sheep left for the use of the family. The sows have 6 pigs the last of March or early in April: 5 of them, with the sow, are fatted, and a young sow kept for pigs next spring. The 5 pigs and old sow when fatted will make 1,100 lbs. of pork; 500 will do the family, with the 5 fat sheep, and leave him 600 lbs to sell, which at 5 cts. a pound is $30. The two calves are fatted and sold for $5. This makes $340 worth sold from the products of the 20 acres, and the family have had their farm living the past year.

It may be thought that this calculation is too large for an average production, but I assure you that if the operator is industrious, economical and judicious, he will seldom fall short of the quantity stated. But it is asked, how can an industrious man be constantly employed on 20 acres of ground cultivated for farming purposes? Look at it. His ground for spring crops is all plowed in the fall. On the first of April he commences operations for the season. He first sows the grass seed on the wheat; then 10 cwt. of plaster on the hoe ground; and as soon as the ground is sufficiently dry he harrows it and sows the barley; then harrows and cross harrows until it is thoroughly pulverized, and then rolls it. By that time the planting ground is ready to harrow, which operation is continued until the ground is well pulverized, and the nearer it can be made to a garden tilt the better.

But if he is ahead of the season with his work he can always have full employment in making the manure heap. He collects every thing that will make manure that his time and means permit; he puts on it at least one ton of plaster at different times. Leached ashes, swamp muck, marl, dirty salt, and old brine, are all collected and mixed with the barn yard dung, so as to increase the manure heap to at least 200 loads.

The ground being in good order and the season favorable, he commences planting the first of May, and takes time and does it well—for there is more lost by careless planting than would pay for four times the labor of doing it well. He first plants the wurtzels, then the potatoes and corn. Planting done, the wheat is to be wed; and as soon as the wurtzels are up he begins hoeing, which affords him employment until the first, and perhaps the fifth of July. He then has some leisure, and assists a neighbor in haying, to procure help in hauling in the grain.

He commences harvest as soon as the grain will answer, and barley will do to cut pretty green. If it is not sufficiently dry to bind let it lie two or three days in swarth. Harvest begun he may work as faithfully as he chooses until the grain is all secured. That done, he harrows, cultivates, or plows shallow the barley stubble, so as to pulverize it thoroughly four inches deep, and sows on it half a ton of plaster. The corn is now ready to cut up: that done he plows the barley stubble deep and well, and sows the wheat. The summer crops are now ready to gather, which employs him a while. When all are secured, he takes out the manure, spreads it evenly over the surface, and plows it under. The hoe ground is also to be plowed for barley next spring, which keeps him busy until it is time to prepare for winter.

In winter he takes good care of the stock, thrashes the grain, and provides fuel—having none on his farm. The orchard is planted by the fence around the farm and door yard.

Now, my Young Friends, be industrious and saving, and you will soon be able to purchase 21 acres of land. And you who have large possessions, and sons you wish to settle near you, divide your possessions with them, and teach them to realize that industry and economy are the sources of wealth— and that a neat, comfortable and independent home, though it is small, will afford more rational enjoyment in old age, than large possessions, with a princely mansion, even if it is not encumbered with debt. *Wheatland N. Y.*, 1849.

RED ROOT OR PIGEON WEED.

BY F. W. LAY.

Messrs Editors:—In my rambles through the country this spring, I have been surprised to see the hold this curse to wheat growers has on the fields; even some of the best and most thorough farmers have very much of it in their soils. While a person has but little of it in his fields, it may be easily kept under by going through the wheat in the spring, and weeding it thoroughly; but if neglected for a few years it will get such a foothold on the soil as to be almost impossible to get it out.

A practice which I have seen tried, is well worthy the attention of those who are thus situated. Some time in the fall, after the wheat is taken off, go over the stubble and drag or cultivate thoroughly—the same as for seeding wheat. This will cover all the seeds of red root that are in the stubble, and will cause them to vegetate—after which they can be plowed under in the spring and destroyed. The great difficulty with the seeds of red root always has been to get them to grow; they will remain in the ground for years, and finally start and grow upon being brought to the surface and covered in the fall. The straw containing the seed of red root should be piled up or made into compost in the spring, and not drawn out in its long state; if not reduced to a finer state, all the seeds will grow when brought to the surface.

I hope farmers will attend to the matter, and not not let this, the worst of weeds to the wheat grower, get the upper hand. *Greece, N. Y., May,* 1849.

Remarks.—We are glad that our friend Lay has broached this subject. Foul weeds are fast gaining *ground* in many sections of Western New-York, and possess something more than a mere "local habitation and a name." Farmers must be on the alert, and guard their possessions from an attack or advance of the enemy. And in this connection we will refer to *one* practice which tends to *increase* rather than *destroy* these pests. Many farmers are in the habit of throwing red root, thistles, screenings, &c., into the highway—not thinking that the seeds are easily carried, by adhering to the hoofs of horses, wheels of carriages, &c., to the barns and farms of those who take great pains to keep their premises entirely free from all noxious plants. In some localities this has become so prevalent, that a reform is urgently needed, and we direct the attention of all interested to the importance of at once and entirely discontinuing the practice. "A word," &c.

WESTERN PENNSYLVANIA.

Messrs. Editors:—Having recently become a subscriber to your journal, I feel bound to acknowledge the benefit it has been to me in awakening an increased interest in the subject of Agriculture; and I am also impressed with the conviction that a more intimate connection between the two great sister States of the Union—New York and Pennsylvania—would be productive of great good to each. Especially would an infusion of New York enterprise benefit Western Pennsylvania. We are a sound, sober, stable people; careful, prudent, industrious and economical—but lacking that indomitable energy which fully develops the wealth of a State.

The eastern county border is the summit of the Laurel Hill, which together with the Chestnut Ridge, (which is included in the county as far as the county extends,) is rich with iron ore, and there are a number of furnaces already erected in that section of the county, and room for many more. The streams which emanate from the mountains, though not generally large are permanent in their character, and afford excellent water power for all manufacturing purposes, which is far from being occupied, to the extent of even the *wants* of the community. The rich, arable lands extend quite to the base of these mountains, and the country abounds with limestone and bituminous coal. The coal is mined and delivered in the towns at from two and a half to four cents per bushel. The mountains afford an inexhaustible supply of timber for building, fencing and tanning purposes. The Pennsylvania Canal, passing along the valley of the Kishkiminitas River, skirts the northern boundary of the county, affording the *means* of an excellent market for the produce of the farm. True we have the means of a good market, but we really have not a first rate market, such as you New Yorkers have. In the manufacturing and commercial pursuits we need a thorough awakening, which would stir up the agricultural community to greater enterprise. Our staples are wheat, corn and oats—horses, cattle and pork. We raise but little barley, and little wool comparatively.

With these facilities in every point of view, for cultivating the soil, for manufacturing and commercial purposes, a New Yorker will be surprised to learn that our good lands, within from five to ten miles of the Pennsylvania Canal, with good buildings, are worth only from twenty to forty dollars per acre. You will, therefore, readily perceive that this is an excellent field for enterprise in any of these departments. Particularly for men of capital disposed to engage in the iron business in any of its branches, to tanners who could commence in a considerable way, and to mechanics who could manufacture the improved agricultural implements, would this be a suitable place, and their labors and investments meet with a sure return. If one of your large nurseries, which I see advertised in the sheet connected with the Farmer could be transported here, I think it would be a good "notion," as our old orchards are about dieing off, and we are *beginning* to plant new ones. And if we could get your goodly city of Rochester set down on the bank of *our* canal, we would be willing to "pay a handsome premium."

As I am but a "new beginner" in the practical part of farming, I shall not attempt any disquisitions on that subject *now*, but at some future day I may *inflict* a communication upon you on some other subject, if this meets with your approbation. And as my farm needs many improvements I shall be very much occupied therewith, but will endeavor to find time to recommend your excellent paper to my neighbors. W. L. A. *Westmoreland Co., Penn., March,* 1849.

Public Lands.—The Commissioner of the General Land Office reports, that 10,800,000 acres of the public lands have been granted by government for public schools; 825,950 for universities, and 8,474,400 for internal improvements in the different States and Territories.

Diogenes being once asked the bite of which beast was the worst, answered, "If you mean of wild beasts, 'tis the slanderer; if tame, the flatterer."

LUNAR INFLUENCE—THE TIDES, &c.

BY PROF. C. DEWEY.

Tides—Modifying causes—Earth flattened at the Poles—Proof—High tide in Bay of Fundy—Reason—Opinion of great men.

Admitting for a moment that the action of the sun and moon, and chiefly of the moon, produces the tides, what might be the difference in the tides at different places? If the earth were covered with ocean some miles deep, the tides would be only two or three feet high at the greatest, and generally about two feet. The great Lakes are too small to have tides; an ocean is required to have the attraction of the sun and moon upon the waters apparent. The tides rise much higher by the waters being stopped in their course by the land of the continents, islands, &c., and by being thus accumulated along the shores.

Again: the tides rise higher in places more favorably situated for accumulating the waters. Places differ greatly in this respect, and of course, the height of the tides. Also; commonly there are two tides daily, but from their different position, some places have less than two tides a day, and some have more than two. These facts exist, and must be solved on any cause, and are consistent with the notion of lunar and solar influence.

The highest part of a tide is under the moon when she is on the meridian on the same side of the equator the moon is, and when she is on the meridian opposite, is on the contrary side of the equator. If the force of the sun and moon act together, the tide is higher, and when at right angles to each other, the tide is lower. If the wind conspires with the other forces, the tides are higher than is ordinary; if the wind acts with power against those forces, the tides are far less than was anticipated. Currents effect the tides, either increasing or diminishing, beyond what the attraction requires. In either case the effect is to be considered.

The earth is flattened towards its poles. *Actual measurement* of the length of a degree of latitude, has proved it. The same pendulum vibrates in less time in higher latitudes. Both prove that the poles of the earth are flattened. The equatorial diameter is the longest, and the polar is the shortest. The difference is about thirty-four miles. This difference of 34 miles in 8,000, will not make much difference in the attraction exerted on different parts of the earth. The northern regions being nearer the centre of the earth, the attraction of gravitation must be greater on the waters, and it must be more difficult for the power of sun and moon to raise a tide. Yet the tides are the highest of all in the Bay of Fundy. But, *as this high tide is not found along the shores northward and southward* of this Bay, it shows that this tide depends on some local circumstances. Looking to the Geography we see the Bay opening like a tunnel towards the east and southeast, so as to receive the flood of tide which has been drawn across the Atlantic, and then the Bay narrows into the neck of a tunnel, so as to give the greatest and best action to the waters in raising the tide along the narrower channel. The high tides in the Bay of Fundy are no objection to the notion of solar and lunar attraction being the cause of the tides.

Along our coast, and the coasts of other countries, the tides rise with great inequality, owing to the local differences in their situation, the capes, shoals, currents, bays, &c. These too are entirely consistent with the power of attraction in the earth, and that of the sun and moon upon the earth.

It is a great curiosity to me that all the most distinguished philosophers from Newton to this day, English, French, German, and American, should agree on the cause of the tides, and that the more fully the laws of nature and their operation are understood, the more confident and perfect should be the agreement of the greatest minds,—of those *qualified* to judge and decide—on the causes that raise the tides. How eagerly would the French and German mathematicians have seized upon any defects in the reasoning of the great Newton upon the tides, if any had been discoverable. But they have sustained his reasoning, and simply carried on its application to greater extent. Though the Newtonian theory of the tides has been slightly assailed by some who have never gone over his reasoning, not one valid objection has been made; not one distinguished philosopher has supported such objection. *Rochester, N. Y.*, 1849.

FECUNDITY OF INSECTS.

Among the astonishing things which present themselves to the eye of the naturalist is the wonderful fecundity of insects. This is a circumstance which would naturally follow the law by which one animal preys upon another throughout the whole animated creation. In no part of nature is this law more extensive than in the insect world, which suffers immense ravages from this cause. In order to fill the deficiences thus made, it would seem to be necessary that insects should be exceedingly prolific. Linnæus calculates that the carcass of a horse would not be devoured with as much despatch by a lion as by three of the flesh fly denominated *musca Vomitoria* and their immediate offspring. For one female fly will give birth to twenty thousand larvæ, each of which will, in a single day, devour sufficient food to acquire an increase of two hundred times its own weight, while only a few days are requisite for the production of a third generation. Prof. Ehrenberg. of Prussia observed an animalcule which he calculated to increase in ten days to one million, on the eleventh day to four millions, and on the twelfth day to sixteen millions. In another instance he supposes that a single individual may in four days become one hundred and seventy billions. The progeny of a single queen bee often amount to forty thousand, and the queen of the Termites or white ants, generally lay at an average of sixty eggs per minute, or nearly ninety thousand in the short space of twenty-four hours. According to Luwenhoek, two families of lice would in sixty days have as many as fifteen thousand descendants.

Astonishing as this increase among insects may appear, certain circumstances seem sometimes to augment it to a most extraordinary extent. In some countries the ant frequently makes its appearance in such countless multitudes, as to defy all human means to destroy them. They blacken the roads and fields for miles, destroying the cattle, and devouring rats, mice, birds, or whatever may chance to be near the scene of their ravages. They rush into the streams in such vast swarms that the tiny carcasses of the drowned form a bridge for the living, often to the depth of six inches, and extending upwards of 500 miles long, and eight or ten feet broad. This wonderful fecundity among insects is, however, exceeded by that of the cod-fish, which is said to spawn in one season a greater number of eggs than all the inhabitants of the State of New York.—*Sel.*

"BLACK LEG AMONG CATTLE."

BY S. P. CHAPMAN.

We were glad to see attention called to this fearful complaint among cattle, in the last number of the Farmer. This is one of those diseases where "an ounce of prevention is worth a pound of cure;" and although we do not believe it can be cured, we believe in a great measure it can be prevented. Let Mr. Watson, and others who are troubled with this complaint in their herds, try the following preventives: Bleed the calves and young cattle in the neck once in the fall, and again in the spring; give a teaspoon full of saltpetre once in four or six weeks; keep plenty of salt where they can have free access to it, [they should be gradually accustomed to this,] and *feed regularly.*

There is but very little danger of a young animal that is kept *steadily growing,* having this complaint. It usually attacks those that have been for a time, at least, rather low in flesh, when they are beginning to do better. It is a very common remark among those who lose cattle in this way—"They were doing well, first rate." We hope no one will be induced by the Editor's remarks, (for we do not think he would recommend it,) to keep young cattle "poor in flesh," in order to escape this disease; for they would be very liable to get a *start* sometime during the year, which, in our opinion, is the greatest predisposing cause of "black leg." Rather keep all of your young stock in good condition, (not fat,) until they arrive at full maturity; they will then be subject to but very few diseases of any kind.

Is this complaint really contagious? We have repeatedly known of an animal being lost with it, and not another one in the same herd, in the least affected; although the dead animal was suffered to remain in their immediate vicinity until a certain swinish multitude held a council, and resolved, out of pure benevolence, no doubt, to *in*-ter it in reality—a thing which should have been done long before, (we do not mean *exactly* in the same way, however,) by a certain biped, professing to be a few steps in their advance in civilization. But, nevertheless, this complaint may be contagious. At all events, it would be well to remove the affected animal from the remainder of the herd as soon as possible.

We cannot recommend the above preventives as a *perfect* security against the "black leg," for they certainly are not; but we believe if the directions were followed, it would result in the saving of at least nine-tenths of the number of animals, that are now annually lost with this complaint. *Clockville, Madison county, N. Y., May,* 1849.

WHEELER'S THRASHING MACHINE.

The question is frequently asked—Why cannot a cleaner be attached to Wheeler's Thrasher? In answer to this question I will give the reasons, as expressed by an extensive grain grower who has used nearly all kinds of thrashing machines, cleaners, &c.

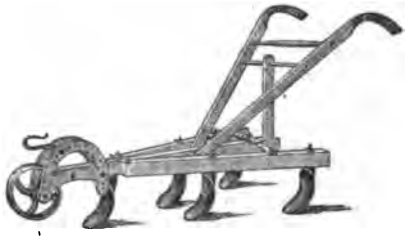
1st. Because the original cost of this Horse Power, Thrasher and Separater, together with one of Grant's largest and best fan-mills, is from seventy to one hundred dollars less than any good cleaner and thrasher combined can be obtained for.

2d. Because, when purchased separate they can be used separately, are more portable, simple and durable; also, the fan-mill is adapted for cleaning all kinds of grain and grass seeds, and the Thrashor for thrashing clover and timothy.

3d. Because of the great simplicity and reduced friction of machinery, less power is required, no driver is needed, fewer men are necessary to attend to the whole operation, to do the same amount of work, than when the cleaner is combined with the thrasher.

4th. Because less grain is wasted—as the fan-mill, when driven direct from the power is more steady, and cleans perfectly with once going through—while, when the cleaner is combined, it derives its motion from the cylinder, which is always varying its speed as the feeder presses fast or slow, consequently blowing away grain with the straw and chaff at one moment, and leaving it half cleaned from the chaff the next—requiring, nine cases in ten, another operation by a fan-mill to prepare it for market.

5th. Because the expense of thrashing is much reduced by the great simplicity of these machines, and all can be managed by the hands usually about the farm; and in stormy weather all can be operated inside of barns, when the laborers and teams could do little out of doors to advantage. Horace L. Emery. —*Albany, N. Y., May,* 1849.



WRIGHT'S CORN CULTIVATOR.

The above cut represents "Wright's double pointed steel tooth Corn Cultivator"—an article extensively used in this section. It is well constructed and durable. The teeth are made of rolled steel, having two points, and bolted in the center to a shank of wrought iron — which latter is so protected from wearing as to last an indefinite period. When one point is worn out, the teeth are easily reversed, thus giving new points—and when both ends (or points) are worn out, new teeth can be substituted at a cost of only 25 cents each.

At the last Fair of the Monroe Co. Ag. Society, the Com. on Implements (L. B. Langworthy, Esq., chairman,) awarded a premium to the manufacturer, and thus noticed this Cultivator:—"Pardon D. Wright, of Rochester—a Corn Cultivator with reversible teeth. A perfect article, and all that can be required for the purpose."

The advantages of this implement (as stated by the manufacturer) consist in the superiority of its work, its durability, light draft, freedom from clogging, and the trifling cost of new teeth when they are required. We have no hesitation in commending it to our readers as a superior article. Manufactured and sold wholesale and retail by P. D. Wright, 120 State st., Rochester. Also for sale at the principal Implement Stores in Rochester, Buffalo, Auburn, and other places in Western New York.

Thomas Ewbank, Esq., author of "Ewbank's Hydraulics," has been appointed Commissioner of Patents, in place of Hon. E. Burke.

NATIVE *Versus* SHORT-HORN CATTLE.

BY WM. HANFORD, JR.

[In reply to S. P. Chapman, page 90 of present volume.]

The "facts" presented by Mr. Chapman would have formed a more imposing array, and been a little more stubborn withal, had they been more definite. The information desired, in behalf of those interested, was *statistical*, not as expressed by the printer. In relation to his premium testimony, if that kind of evidence is worth any thing towards establishing the merits of an animal, or breed of animals, its value would certainly be enhanced by a statement of the number of competitors, and the preparation of animals for exhibition, as well as of the extent of territory open for competition. The cows mentioned are probably as near "right" as the skill and intelligence of their distinguished owner can well make them. I have advanced no theories—advocated no doctrines, as the result of my own observation: but I have intimated, and still hold, that the Genesee Farmer has heretofore contained some things relative to native stock* worthy of respectful consideration. "To prove *this*" I will, with leave, present a few extracts—a few of "many recorded facts showing the good *milking* qualities" of the said stock.

We have the following account of a Sussex bred cow, owned in Lews, England, called the Cramp Cow:

"From the first day of May, 1805, the day she calved, to the second day of April, 1806, a space of forty-eight weeks and one day, her milk produced 540 lbs. of butter. The largest amount made in any one week, was 15 lbs. From May to June, she gave 20 quarts per day. From 20th June, to 20th September, 18¼ quarts. In 47 weeks she produced 4,921 quarts of milk. In the next year, from the 19th day of April, 1806, the day she calved, to the 27th February, 1807, forty-five weeks, she produced 450 lbs. butter. The largest amount per week was 12 lbs. The quantity of milk for the time 4,137 quarts. During this year she was sick and under a farrier's care three weeks after calving. She went dry seventeen days only. In the third year, from the 6th of April, 1807, the day she calved, up to the 4th of April, 1808, fifty-one weeks and four days, she produced 675 lbs. of butter. The largest amount made in a week was 18 lbs. The quantity of milk given in that time, was 5,782 quarts. In the fourth year, from the 22d of April, 1808, the day she calved, to the 13th February, 1809, forty-two weeks and three days, she produced 466 lbs. of butter. The quantity of milk given in the time, was 4219 quarts. In the fifth year, from April 3. 1809, to May 8, 1810, fifty-seven weeks, her produce in butter was 594 lbs. The amount of milk given in the time was 5,369 quarts. The largest quantity of butter in any week was 17 lbs."

Now is this the whole story respecting this cow? No. All will admit that her produce was a *little* extraordinary; and it is invariably true that to do things extraordinary with *horned cattle*, they require extraordinary feed and care. Those who *think* otherwise are better prepared to *swallow* than to *digest*. My object being to elicit, and as far as I am capable, to disseminate truth, I will here insert the account of her treatment.

"In the summer season she was fed on clover, lucerne, rye grass and carrots, three or four times a day; and at noon about four gallons of grains and two of bran mixed together, always observing to give her no more feed than she eat up clean. In the winter season she was fed with hay, grains and bran, mixed as before stated, feeding her often, viz. five or six times a day, as was seen proper, and giving her food when milking; keeping the manger clean where she is fed with grains, not to let it sour; washing her udder at milking three times with cold water, winter and summer; never tied up; lies in or out of the barn as she likes, particularly careful to milk her regularly and clean."

Of the celebrated Oakes Cow, the Hon. Zadoc Pratt remarks:—"Her history illustrates two things worthy of note: first, *what we can obtain from the best of our old breed*; and secondly, how much depends on *good feeding*." An account of this cow has been so frequently published, I will in this case omit it. "The Nourse Cow," owned in North Salem, made 20 lbs. of butter in one week, and averaged 14 lbs. butter per week for four successive months." I might to these add numerous other instances, showing what has been done by cows from the *vulgar herd*.

In his zeal to obtain evidence to sustain the issue he has thought proper to raise in this matter, Mr. Chapman has called to the stand one witness, whom it will be well to cross-examine. I allude to Mr. Henry Colman. How far this gentleman stands committed to the stock of Mr. Prentice, or to Durhams in general, a few short extracts from his writings will show. In the same article from which Mr. Chapman clips his paragraph, we find the following abatement to what was there said: "I have only to desire that Mr. Prentice would by a lactometer, ascertain the qualities of his milk; and then that he would ascertain the actual yield in butter of several of his animals for a week or so; and when this is done, that he would show his benevolent countenance in the New Genesee Farmer, and let our readers know all about it."

Now on what grouud rests the high encomium of Mr. Prentice's stock? External appearances alone,—which we all know are sometimes deceitful. But has Mr. Prentice complied with the request? Mr. Colman having cleared up his character for consistency, let us hear what he says about "Cream-pots." On the side of their dam, they are descended from a distinguished cow of *native* breed. Relative to this matter Mr. C. says:—"Their beautiful color is certainly derived from the dam; and as the distinguishing feature in this stock is the richness of their milk, and this being precisely the quality for which the dam, the Haskin's Cow, was distinguished above all others, and it not appearing that any stock of Coelebs *but when connected with this cow*, has ever been remarkable for this quality, it would not seem difficult to determine on which side of the house this excellence belonged." "*Truly a strain of Durham blood does not injure the milking qualities of our native stock.*"

Of Durhams in general, Mr. Colman says:—"Whether any thing would be gained by substituting the Improved Short-Horns for our present stock, is to say the least questionable. *The Short-Horns are great consumers.*" Has he "ever bred or owned a pure bred Durham?" One moment's patience.—"Though animals do not always consume in proportion to their size, yet this must be considered as a general rule. They require *most particular attention* and liberal *feeding* to bring them to maturity, though we admit that they arrive at maturity early. Many of the Short-Horned premium young animals which have been exhibited at our cattle shows, have had the benefit of two wet-nurses for six months." In another place Mr. Colman says:—"*My own experience*, either with the *full bloods* or the *mixed breeds*, has not been favorable to them for *milk* or *butter*." Is Mr. Chapman satisfied. Again Mr. Colman says:—"The Durham cows are large animals, and should be expected to secrete largely of milk; but many of them, however, are *inferior as milkers*; and upon as calm and impartial a view of the subject as I can take from my own personal observation, *I cannot pronounce them*, as a race, distinguished and preferable to all others for their *dairy qualities*."

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* For a mass of information respecting Ayrshire, Durham and Native Stock, see New Genesee Farmer, Vol. 3, pages 2 and 18—from Mr. Coleman's Fourth Report on the agriculture of Mass.

Now, Mr. Editor, if these statements, which are entitled from a variety of considerations to the highest respect and confidence, be true, I submit to your grand jury of intelligent readers, whether "facts" will warrant us in paying "$200," for a "Durham Bull," or whether in doing so our cows would be much improved by the "investment."

Dryden, N. Y., April, 1849.

REMARKS.—The writer of the above will observe that we have omitted one or two sentences, and modified others which contained some remarks foreign to the subject, and unnecessary in a friendly discussion. In discussions of this nature, it is important to keep cool, and produce facts and figures which bear upon the subject. It is not surprising that well informed farmers should honestly differ as to the relative merits of the various breeds of cattle, horses, sheep, &c. Of cattle the Devons, Durhams, Herefords, and Ayrshires, as well as our Native breed, each have their advocates—and every person can furnish a "why and wherefore" for his preference. On another page of this number we speak somewhat highly of Devons, and yet we are not prepared to say that they are superior to some other improved breeds. For the dairy good cows may be found among all breeds in this country, native and foreign—and it is, as a general rule, best to secure deep milkers wherever they can be found, without regard to origin.—ED.

HEDGES vs. WIRE FENCES.

MESSRS EDITORS:—I see much said in your valuable paper about wire fence, and have been expecting to see in every number for some time, some one stepping forward to prove the superiority of *hedges* to every other kind of fence—especially when there are no stone for walls. That wire may be profitably substituted for rails, I have no doubt, and that hedge plants may be as profitably substituted for wire, I have as little doubt.

The average cost of wire fence, taking our country as a whole, may be fairly put at 60 cents per rod. One of your correspondents says, that farmers should be satisfied if they can build a *durable* fence for 50 cents per rod. But allow me to ask if farmers should be satisfied with a wire fence, at a cost even of *fifty* cents per rod, if they can build one *much more durable and beautiful* for considerably less than that sum?

I believe it is universally conceded that the *Norway Spruce* will make a *strong, imperishable and durable* fence—combining splendid appearance with perfect ability to resist all the encroachments not only of brutes, but of rude boys and men. Small plants may be had at the Mt. Hope Garden and Nurseries at $50 per 1000. These may be set 2 feet apart, which, if I am rightly informed, will answer very well, if trimming is deferred until they have attained a height of two feet. One thousand plants will set about 120 rods, which would cost, exclusive of labor, *less* than 50 cents per rod. There might, it is true, be somewhat of a drawback in a failure of some of the plants to live, but not enough we apprehend to make it any very serious objection.

If, however, the Honey Locust should be preferred, the cost per rod would scarcely exceed 25 cents.—And, taking into account its ability to bear transplanting, its hardiness and rapid growth, it might be more desirable than the Norway Spruce; and either, in my opinion, would be cheaper, much more beautiful and durable, and a more effectual barrier against depredations of every species, than fence made of wire.

The time is not distant when logs and rails and boards must be displaced by something more durable, and the sooner the practicability or impracticability of making hedges take the place of all other kinds of fence is demonstrated, the better will it be for the country. I find that there are many, particularly in this western country, who would like to see this subject discussed in the "Farmer"—as we regard that, especially, as the standard of Agricultural Orthodoxy. The citizens of our villages enclose their grounds with fences that cost from $2 to $6 per rod, where they might substitute the Italian Privet, Arbor Vitæ, Red Cedar or Norway Spruce, at a much less cost—besides furnishing something exquisitely beautifnl as a perpetual feast for the eye. A. T.—*Coldwater, Mich., May*, 1849.

WE would like to hear from other correspondents on this subject—particularly those who have had experience in growing hedges.—ED.

ALARMING DECREASE OF FORESTS.

Hopelessness of the success of Hedge Fences—Nature's provision for Heat—Immense Storehouse of Coal, &c.

MR. MOORE:—Many thinking persons who are aware of the millions of cords of wood consumed annually, by its profuse use by our entire population—steamboats, railroads and manufactories—become alarmed for its results to posterity. So far as it applies to fencing and building materials their fears are justly grounded; especially in those sections of country where live hedges are a forlorn hope, owing to their destruction by mice during the period of heavy snows and drifts—an evil which it is impossible to overcome. But on the score of fuel, if they will consider that there is a single coal formation in the region, or basin, drained by the Ohio, of more than 50,000 square miles in extent, of an average workable thickness of 20 feet, their fears must subside.

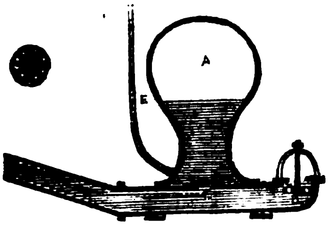
This single mass which is already accessible to railroads and canals, would give over three tons annually to every man, woman and child in the U. States for 20,000 years to come. It would form a pyramid that would shame the ancient worshippers of the sun, with a base 10 miles square and 30,000 feet high. What a vast and luxuriant vegetation of tropical, vascular and cryptogameous plants must have flourished, during that remote period of the earth's juvenility, when condensed, charred and almost chrystalized, to have formed this immense bed of coal, of which it is only one of a half dozen of nearly the same extent in the United States. All the coal fields of Europe might be taken from ours, and not be missed.

What a wonderful provision of an all-wise Creator, for the comfort and happiness, industry and wealth of a thankless race; who are far from appreciating their superiority over all created things, or the blessings provided for their exclusive use! *

HAVE none but good implements—keep them in good repair, and under cover when not in use.

THE HYDRAULIC RAM.

MESSRS. EDITORS:—Few of those who might be benefitted by the use of this article, have hitherto become aware of its great utility. Although the principle upon which it acts is one of the most simple in nature, and notwithstanding the fact that it has been applied to the raising of water for more than 3000 years, a kind of mystery has hung about it, and the seeming absurdity of the idea that water can be made to elevate itself above its level; and to supply a constant and abundant stream at any desired elevation, without the liability to accidents and stoppages, has prevented inquiry into the construction of the Hydraulic Ram; and consequently, it has remained comparatively unknown, and until within a few years, but little used. Supposing a brief description of its construction and operation might be acceptable to those of your readers who are not acquainted with it, I submit the following to your disposal.



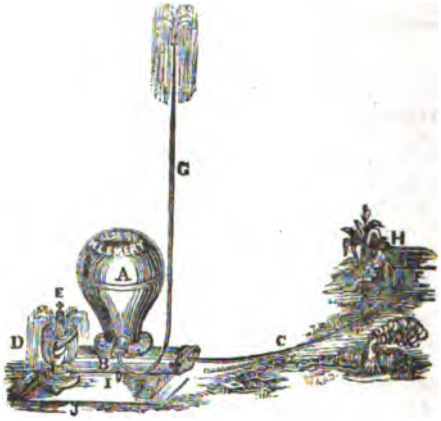
The above cut represents a vertical section of the ram. A, the air chamber—B, the waste valve—C, valve opening into the air chamber—D, the feed or driving pipe—E, pipe to convey the water where it is desired. The pipe D should be 30 to 50 feet long, and from 1 to 2 inches calibre; the pipe E any length desired, and about ½ inch calibre; lead pipe is commonly used. The circular figure on the left represents the form of the waste valve. The waste valve is made to vibrate up and down thus: the water passes down the driving pipe D, and escapes at the waste valve B. Now, as any descending body increases in velocity and force every instant of its descent, the column of water descending in the driving pipe, quickly attains sufficient velocity and force to lift the waste valve, but the valve in rising instantly stops the passage, and the whole momentum of the water strikes against it and seeks relief, which is only found at the valve C, through which a quantity of water is forced into the air chamber, where it is confined by the closing of the valve. The momentum being thus expended, and the water at rest, the valve B drops by its own gravity, and is ready to start again. After repeated vibrations, the air chamber becomes partly filled with water, compressing with a small space the air, which, by its elasticity, reacts upon the water, and forces it up the pipe E to any desired elevation or distance.

Thus simple is the machine, and, when once properly set, it will act for years without a penny's worth of repairs, and be as constant and regular in its duty as is the law of nature upon which it acts.

Many a farmer has a good spring or stream of water in the vicinity of his buildings, which would be to him invaluable if it could be brought to the house and barn; but being at a distance, and below the level of his buildings, it cannot be done by the ordinary means of conveying water: to such the ram becomes one of the most useful contrivances that ingenuity and science has ever furnished. Faithfully performing its work, unattended and unnoticed, with constant and regular pulsations as of life, it presents one of the most beautiful and interesting achievements that mind has ever obtained over matter.

A fall of not less than 18 inches at the spring, and a quantity of water not less than ½ gallon per minute, are necessary to operate the Ram,—but the greater the fall and the quantity of water furnished, the greater will be the quantity of water elevated by the Ram. They are made of several sizes, and adapted to every variety of circumstances. Different manufactures number their rams without regard to the size of the corresponding number of others. The No. 4 Ram, sold at the Albany Agricultural Warehouse, is the most convenient size for common purposes, and when set according to the directions accompanying it, may be made to raise 10 to 20 hogsheads of water to an elevation of 50 to 100 feet, and carry it to any distance required. It should be remembered that the greater the fall at the spring or stream, compared with the height to which the water is elevated, the greater will be the quantity of water elevated, and that there is no limit to the height to which it may be raised, except the strength of the pipes used. W. B. E.—*May*, 1849.

REMARKS.—For the purpose of further illustrating the subject discussed by our correspondent, we add the annexed cut, which represents the hydraulic ram as it appears in operation:



H, spring or brook. C, drive or supply pipe, from spring to ram. G, pipe conveying water to house or other point required for use. B, D, A, E, I, the ram. J, the plank or other foundation to which the ram is secured.

In the eighth volume of the Farmer we published a series of articles entitled "Hydraulics for Farmers," embracing figures and descriptions of various water rams—to which we refer those of our readers desiring further information.—ED.

* * *

MILK AS AN ARTICLE OF DIET.—It is common to regard milk as little else than mere drink. But this is an error. Milk is really an article of solid food, being coagulated soon after reaching the stomach. New milk contains thirteen per cent. of digestible solids, and skim milk ten per cent.; that is, the former fully one-half and the latter above a third of the nutriment contained in the lean part of beef and mutton.—*Foreign journal.*

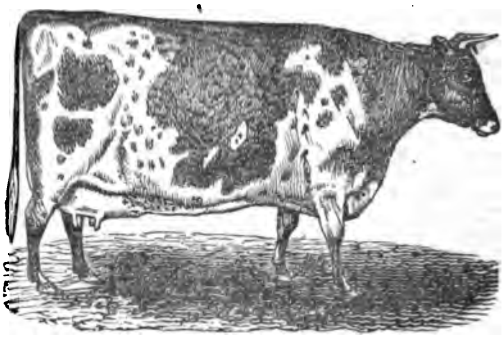
SYSTEM AND ECONOMY IN FARMING.

It was Wesley who said, "*I am always in haste but never in a hurry*"—a saying truly characteristic of the careful and prudent farmer. No moment is wasted in listless idleness; he has no time to waste in gossip or amusement during the hours of labor—but when the toils of the day are over, cheerfulness and content are his, for his duty has been accomplished. He hastened to his work, and without hurry or excitement he has seen his work done, and the sun sink below the horizon, bidding him to refreshment, domestic enjoyment, and sweet repose. System and order point out the work for every hour, and by "making haste slowly" nothing is left undone, which can be done at the time present; consequently no regrets or repinings ever disturb his comfort, or the cheerfulness of his home. When morning opens the gates of day, the wife who is as dear to him as the bright red drops of his heart—and his children, the best ornament of his power—with these around him praise and thanks are the first emotions, silently or loudly expressed. With energy and strength he goes forth, to perform no *uncertain* duty, and *never* with the inquiry as to what is to be done. No—his well arranged system leads him from day to day and from hour to hour to that particular work which careful study and thought had pre-arranged.

Thus the seasons, in all their beauty and fruitfulness fly round the circle of the farmer's life, lessening its span year by year, till, reaching its centre, he passes away full of age and happiness, the object of veneration and joyous reflections to those who remain of his contented household, and the pole star by which they endeavor to follow in the path leading to results for which every heart should pant and strive.

While we are yet young and in middle life, how often does the question arise, "*when shall we find time*" to read or study, or do some one admitted and needful duty? No sooner does this question present itself, or even the thought exist, than we should suspect error in our heads or hearts, for *there is time* for all things good and profitable. Many are the noble instances of persons in this country, who, after the usual hours of labor, between the rising and setting sun, have *then found time* to become familiar *with knowledge*, leading them to the highest honors of our nation, and well-merited applause of their fellow-men.

Where is the man who does not waste more than one hour in every day of his life?—wasted in the pursuit of unproductive amusements, or in empty idleness. Let each man scrutinize his own daily conduct and I am convinced he will admit that an average loss of time exceeding *two* hours per day has marked his every year. Suppose then we admit that *one* hour per day is saved for a life of fifty years—it gives a saving of about *four years*, a period equal to the acquisition of knowledge sufficient for success in any vocation of life, when added to the practical observations and applications of our daily work. In this respect the farmer has peculiar and extensive advantage *over every* other class of men. The very elements of creation are ever before him; the daily bread, the comfort and happiness of all other classes are dependent, under providence, on the exertions of the farmer; in this country the very government is upheld, directly and indirectly, mainly by the agriculturist. What a field, then, has the farmer for study! and what inducements has he to seek, examine, digest and thoroughly to understand the great book of knowledge thus placed in his keeping for the good of his fellow-men!—to economize his time, avoiding waste. Farmer.—*Seneca Co.*, 1849.



THE AYRSHIRE COW "AYR,"

Owned by E. P. Prentice, Esq. of Mt. Hope, near Albany, is one of the most perfect and beautiful animals of that breed which we ever saw. The portrait gives a very good idea of her form, &c. She is thus described by Mr. Howard of the Cultivator, in which journal the cut originally appeared:

"She possesses in a high degree the excellent milking properties which distinguish the best of the breed to which she belongs, united to a more perfect symmetry than we have ever seen in any other Ayrshire, and which we have seldom, if ever, known equalled in any breed. Her body, (as will be seen by the cut,) is small; but her frame or bone is proportionally less. The head is small, the face dished, the forehead broad, and the eye prominent. The neck is small at the junction of the head, but pretty deep and full at its connection with the body. The back is straight, the crops fine, the ribs round, the loins broad, the flanks deep, the udder capacious, (spreading wide on the body but not hanging low,) and the milk veins large and prominent. The legs are small but strong, hard, and sinewy, like those of a deer. The great length and depth of the hind quarters might, from a profile view, give the idea that the chest was too light; but though the hind quarters are proportionally heaviest, (as we prefer to have them in a milch cow,) there is no deficiency in the fore end. The sternum, (or breast bone,) is wide, the fore legs stand wide apart, the bosom is full, and the first ribs are particularly full and wide-spread at their junction with the sternum, giving a chest of great capacity for an animal of her size. As her form and general appearance indicate, she is healthy and hardy. Her skin is of a yellowish hue, mellow and elastic; and though she does not possess the fattening quality in an *excessive* degree, or to an extent that would interfere with her dairy qualities, she thrives very rapidly when not giving milk. The quantity of milk she affords is, in proportion to her size, quite extraordinary. She has given, when on grass-feed only, upwards of twenty quarts (by actual measure) per day, and she continues in milk till near calving. No particular experiments have been made with regard to butter, but her milk has been ascertained to produce a large proportion of the richest cream."

A bright plowshare is the cheapest commodity ever used by a farmer.—*Cobbett.*

MANUFACTURE OF CHEESE.

THE following article is from the pen of Mr. A. L. FISH, one of the most experienced Cheese Dairymen of Herkimer county. It will be interesting to that portion of our hundred thousand readers who are engaged in the dairy business—a large number of whom take but one agricultural journal. We copy from the May number of *The Cultivator:*

HAVING been so frequently addressed by different persons in this and other States upon the subject of dairying, that to reply to each individually, would be quite inconvenient and burthensome, I propose answering some of the most important questions generally asked by new beginners, through the columns of your widely circulated paper,—hoping they will reach every person who deems *book farming* of sufficient importance to take an agricultural paper. At the low rate that such papers are now afforded, those who do not take one, have a poor excuse for begging information of their neighbors, to keep pace with the present tide of improvement.

"What kind of cows are most profitable in a dairy?"

It depends much upon location. If a dairyman is remote from a good grain market, where the coarser grains would bear a better profit fed to milch cows than to market otherwise, his selection should be of deep milkers, that will bear grain feed without accumulating too much flesh. If near a good beef market, where beef is worth nearly as much per hundred as cheese, look well to the size and thrift of a cow, so that if she is not a deep milker, she will turn well for beef. As a general rule, those are most profitable that are deep milkers, and will hold out a good flow of milk through the season, keep in good condition, and are quiet and gentle. He who cannot furnish plenty of good feed, should beware of such cows as have been highly fed, or his profits will be small.

"What is the best age of a cow?"

From five to ten years old. I have no objection to a cow ten years old for a season. She will consume more feed than a younger one, but her milk is richer till she begins to decline in condition, and lose strength and vigor.

"What is the most congenial feed for cows immediately before and after calving?"

Plenty of good tender hay or grass, and a small quantity, *daily*, of such other food as is best calculated to loosen the bowels and nourish the system, without creating a fever in the secretive organs. Wheat bran, oat meal, potatoes, or other roots, are deemed best for that purpose. If a cow is in high flesh, a mild bleeding from the neck, with half a pound of salts, fed in a mash, previous to calving, is good.

"What quantity of grain will a cow bear feeding, profitably, and should the kind be varied, at different periods, during the milking season?"

All cows will not bear feeding alike. Some not being deep milkers, would acquire too much flesh and shrink in milk, with the same amount of feed that others would turn to profit in milk. Hence the necessity of feeding *separately*, with close observation in regard to the constitution and capacity of different cows. A man's observation in his own practice, is generally the best test in this matter. I have long since abandoned the practice of heavy feeding before and immediately after calving. Two quarts of corn or barley meal, or four of oat meal, or six quarts of wheat bran, may be safely fed, daily, to each cow. While kept to hay, grain feed should be made into slop, and fermented before feeding. The profit of feeding grain more, or longer than to bring cows to grass healthy and strong, would depend upon the comparative value of the feed with that of the product. Nothing can be fed to a cow that will increase the quantity of her milk from plenty of good grass. The only gain in feeding slop and grain during flush of feed, is by enriching the milk and retaining the cows' appetite for it when grass fails. When first turned to grass, cows are apt to scour, and shrink in milk. Dry wheat bran, or cob meal, will then be better than slop feed. Barley and corn meal are too cathartic to feed in large quantities while the cows are at grass.

"Can all dairymen make it profitable to grow corn, sown brodcast or otherwise, to feed to milch cows?"

Where the soil is strong enough to bear a large burthen without manuring too highly, it will bear a profit, as it is the best feed that can be given to keep up the flow of milk between early and fall feed. But where the soil needs much manure, it is not good policy to manure highly a small piece of ground to obtain a large crop of any kind, to the neglect of other important crops. In other words, the dairyman would receive a greater benefit, in a long run, from distributing one hundred loads of manure on ten acres of meadow land, after harvest, or putting on that amount with the seed when stocking down for meadow, than by putting it on one or two acres to grow corn, to feed cows in summer. A small feeding of corn daily, will take the appetite from grass with little or no benefit. I have found it best to feed plentifully at evening only.

"What is the best mode of heating milk and scalding curd?"

That which will produce the most perfect equilibrium of heat through the whole mass, with the least exposure to excess of heat. A smaller vessel containing the milk or curd with whey, set into a larger vessel which contains water, through which heat is conveyed to the vessel containing the milk or whey, is the safest mode, and is now generally practiced here. The more water there is in the larger vessel, the more uniform heat is conveyed to the milk. If a large tin vat is used, set into a wooden box or vat, the tube attached to one end of the tin vat, and extending down through the bottom of the wood vat, to discharge the whey when the curd is sufficiently scalded, should be large enough to let off the whey at once, or the curd will settle or pack together, and require much hard labor, and will waste, by friction, in separating it and making it fine enough to drain and salt properly. A vat for thirty or more cows, should have a tube at least two inches in diameter, and the tin cylinder, with a tube at one end, to fit snug into the tube carrying off the whey, should be as high as the vat, and four or five inches in diameter; with as many very small holes punched in it as can be and hold together, in order to strain the whey from the curd as fast as it will pass off through the tube.

"Why would it not answer as well to pass steam directly into the milk or whey and curd, as it would save expense in fixtures?"

Because that portion coming in contact with steam, would be exposed to an excess of heat, and would not be affected by rennet like other portions which were not overheated.—Consequently, a strict affinity would not be maintained, which is necessary for a perfect coherence; and more or less would float off with the whey, or make trouble in curing the cheese.

"Is a thermometer a sufficient guide in making cheese?"

A thermometer *that is correct*, is an indispensable guide in measuring the amount of heat to be used; but the time of raising the heat and continuing its effect, must be varied to meet contingent circumstances. [*To be continued.*]

* * *

A NEW SPECIES OF COTTON, called the Prolific Pomegranate, surpassing any of the gossypium family has been grown in Mississippi, by Gen. Mitchell, of Warren county. The tops and side branches are all thickly studded with bolls. The stalk does not attain a height usually of more than four or five feet, but every portion of the plant is literally covered with bolls, which are sustained in an upright position by the strength and vigor of the stem and branches. The chief peculiarity of this plant is that the stem and branches have no *joints* as in other kinds; and although the bolls are so numerous, there can be no inconvenience in picking. The staple is beautiful, and far more silky than the best Petit Gulf. From one-third of an acre (measured) he gathered and weighed the past season 2,142 lbs. of superior cotton. One hundred pounds of the seed cotton yielded 32¼ lbs. lint, and by an accurate test he found that sixty-five bolls made one pound of lint.

* * *

OLD APPLES.—The Worcester Spy gives an account of an apple more than 56 years old. It has been presented to the American Antiquarian Society, by Col. JACQUES, who received it from a young lady, a birth-day gift, in 1792. There is also, in the family of the late Mr. MORRIS DOBBS, at Northampton, N. H., an apple which grew in the year 1776, which is still in a good state of preservation. An interesting child near the hour of its death, craved the then fresh apple, and after attempting to bite it, it was thrown aside. We have recently seen it, and the marks of its teeth are still visible. It is a little remarkable that it blossomed under British government, was growing when our independence was declared, and was gathered as one of the *first fruits* of American independence. It is preserved as an interesting family relic.

Spirit of the Agricultural Press.

On Stone Fences.—The Editor of "The Plough, Loom and Anvil" says:—Peter Minor, of Virginia, was a man of rare modesty, and of very rare merit, both in his disposition and his example—in his pursuit of useful knowledge, and in his perspicuous manner of imparting,,unreservedly, what he knew for the benefit of others. On the 1st of October, 1819, a paper was read from him to the Albemarle Agricultural Society, on the subject of *Stone Fences*. He maintained that the cost of keeping up timber fences, would, in thirty-three years, amount to more than the worth of the land, supposing it to be worth $20 an acre. The view he presented was this :—

An inquiry naturally presents itself on this subject:—What is the relative value of a farm fenced with stone, compared with one fenced with dead timber? Take the following data.

From the best accounts I have been able to obtain from others, and from my own experience, it may be fairly stated that one full month of the annual labor of every farm is consumed in the various operations of cutting, mauling, hauling, and putting up fences. This is one-twelfth of the year, or one complete year in twelve, that is devoted exclusively to making and repairing dead fences: and as the expense is annual, it is clear that the condition of such fences is no better at the end of any year than at the beginning. Again —I think it may be fairly stated, that when the materials are in place, the expense of erecting a stone fence does not exceed that of erecting one of rails, including the various operations above-mentioned. The value of the timber, (which is not taken into the account above) and the advantages of having the land cleared of stone, will balance the expense of moving the stone three or four hundred yards. So that on a farm abounding with stone, and where the transportation does not exceed this distance, I think a fence of stone will in the first instance be as cheap as a rail one. Suppose, then, two farms of 500 acres of arable land each, in all other respects equal, except that one is fenced with stone, and the other with dead timber. Each of them employs twelve laborers at $100 a piece per annum. One is at no expense, while he who fences with timber consumes one month in every year, in making and repairing fences. This is an expense of $100, being the labor of one hand during a complete year. At annual compound interest this would amount in less than 33 years, to $10,000, which is the entire price of the land, supposing the farm to be worth $20 per acre. Thus in 33 years, the one farm would be able to buy the other, from the expense saved by the different mode of fencing. It is true there are not many farms capable of being entirely fenced with stone, but there are scarcely any that do not admit of it in some degree, and the advantages would be derived in a similar ratio to any part which could be thus enclosed. P. Minor.

The Lama and Alpaca.—A communication has been received by the Paris Academy of Sciences, from M. Christian Bonafoux, giving an account of the attempt made by order of the King of Holland, to acclimatize the lamas and alpacas of Chili. Four years ago, thirty-four of these animals, males and females, were imported into Holland, and put into the royal park Schevinigen, near the Hague, where they have propagated freely. The climate does them no injury, and they merely seek the shelter provided for them, when there is snow on the ground.

Antidote for Poisoning.—A writer in the London Literary Gazette, speaking of the many deaths from accidental poisoning, remarks :—"I venture to affirm there is scarce even a cottage in this country that does not contain an invaluable, certain, immediate remedy for such evils; nothing more than a desert spoonful of made mustard, mixed in a tumbler of warm water, and drank immediately. It acts as an instantaneous emetic, is always ready, and may be used with safety in any case where one is required. By making this simple antidote known, you may be the means of saving many a fellow creature from an untimely end."

How to Get Rid of Crows.—A cotemporary says that some cute fellow "down east" has discovered a novel mode of getting rid of the crows. You must take some shelled corn, and run a horse hair through the grain with a needle, and tie a knot in the hair close to the grain, and sow them in corn fields, and the crows will pick up this grain with the hair in it, and it will tickle them, and they will kill themselves a scratching. This is giving them the "Old Scratch" with a vengeance.

Thin Sowing.—One fact, says the correspondent of the Gardener's Chronicle, is worth at least one thousand speculative opinions. I therefore send you the comparative results of two experiments with five pecks of seed wheat vs. eight pecks of seed wheat. This is the third year of my experiment; and as usual the smaller quanty yields the largest return, besides saving the additional seed. In one case the saving is equal to the rent of the land ; the wheat was carted, thrashed, and measured in the presence of myself and the laborers, some of whom had made bets as to the results. The ground was accurately measured. I had several pieces with only one bushel per acre, which certainly were in appearance more productive than the five pecks.

Gates.—Every field on the farm should be entered by a good self-shutting and self-fastening gate. A proper inclination in hanging will secure the former requisite, and a good latch, properly constructed, the latter. Each field should be numbered, and the number painted on the gate-post. Let the farmer who has bars instead of gates make a trial of their comparative convenience, by taking them out and replacing them without stopping, as often as he does in one year on his farm, say about six hundred times, and he cannot fail to be satisfied which is the cheapest for use.—*Thomas*.

Deep and Shallow Planting.—C. L. Shepherd, of Illinois, planted his corn-field shallow, or about an inch deep, except eight rows through the middle, which were planted two or three inches deep. The shallow corn came up first, and kept the lead through the whole season. The difference was discernible as far as the corn could be seen.

Farmers' Clubs.—We understand that an "Agricultural and Mechanical Club" has been formed in the town of Auburn, the object of which is the free discussion of all subjects pertaining to the interests of mechanics and agriculturists. The officers are John Gaylord, President; Wm. Woods, Vice President; C. Ferris, Secretary; Joseph Swift, Treasurer. The association is considered an auxiliary to the Cayuga Co. Agricultural Society.—*Cultivator*.

Premium Crops.—The Ontatio (N. Y.) County Agricultural Society, awarded premiums on crops grown in 1848, as follows: *Wheat*, first premium to John Rankin, 45½ bushels per acre; second premium, to Jared Wilson, 45 bushels per acre; third premium, 31½ bushels per acre. *Indian Corn*, first premium to Uri Beach, 103 bushels per acre; second premium to John Rankin, 92 bushels per acre; third premium to E. M. Bradley, 83 bushels per acre. *Barley*, first premium, to E. M. Bradley, 60 bushels per acre; second premium to S. B. Dudley, 48 bushels per acre; third premium to M. Adams, 45 bushels per acre.—*Ib.*

A barometer kept in the same place undergoes variations of altitude, some of which are regular and other irregular.—The former, which depend upon diurnal tides in the atmosphere analogous to tides in the sea, occur about the same time in the day; the greatest depression being commonly about four in the morning and evening, and the greatest elevation about ten in the morning and night. In summer, however, they are an hour or two earlier in the morning and as much later at night.

Large Cow—The Detroit (Mich.) Advertiser, says :—We noticed a cow in front of our office yesterday afternoon, belonging to Mr. Bigley of this city, weighing more than sixteen hundred pounds. This cow was imported by Henry Clay some years since, and is of the fine Durham stock.—She was driven into this city from Calhoun county, in this State.

To Preserve Milk.—If milk be introduced into bottles, then well corked and put into a pan of cold water and gradually raised to the boiling point, and after being allowed to cool, be taken out and put away in a cool place, the milk may be kept perfectly sweet for half a year. Or it may be evaporated to dryness, by a gentle heat, and under constant stirring. A dry mass will thus be obtained which when dissolved in hot water, is said to possess all the qualities of the best milk.

Grain raising in Cuba.—The Philadelphia North American has Havana papers to the 22d of March, in which the utility and necessity of planters devoting their attention to cereal crops, in preference to sugar, is said to be urged and argued with much force and earnestness.

Tools and Implements.—Let every description of tools and implements be examined, have those requiring it repaired, and those not in use carefully put away under cover.—Such attention saves both time and money.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

HINTS FOR THE MONTH.

Tree Department.—The earth around newly planted trees, should be kept clean and mellow all summer. *Mulching*, that is covering the earth around the tree as far as the roots extend or farther, with 3 or 4 inches deep of litter or manure, is an excellent practice. It keeps down weeds, and prevents moisture from evaporating, rendering the application of water quite unnecessary. Watering should only be resorted to in cases of extreme necessity, and when once commenced should not be discontinued until rain comes. The surface should never be allowed to bake after watering, as then the water does more harm than good. It is a good time now to rub off useless or misplaced shoots while tender; the use of the knife will not be required on them afterward, and the tree will be all the better for their timely removal, Grafted trees should be examined, and all suckers, or shoots from the stock be removed,as they will interfere with the growth of the graft. So with buds of last season; they must be looked to, and all shoots from the stock kept down.

The thinning of fruit should be attended to.—Very few people think of thinning the fruit on their trees, and the consequence is, many trees are injured, broken down or enfeebled, so as not to recover for years, if ever. On dwarf trees thinning is particularly necessary—some varieties are so prolific as to completely overbear themselves. The better way, in such cases, is to remove the fruit buds; but this not being done, the next best way is to remove the young fruit. This is a hard matter where fruit has been so anxiously looked for, but it is necessary and should be done promptly by all who value the health and longevity of their trees, or who wish, even, to raise large, finely colored and fine flavored fruit.

Birds are very troublesome to the cherry trees in some places. Some people think shooting them the most effectual remedy, but we dislike it very much—better frighten them if you can. A very successful plan went the rounds of the papers some time ago, viz: to hang bits of broken looking glass in the trees, so that they might dangle in the air. The curculio will attack the stone fruits, as usual; the thousand remedies suggested are as familiar to the readers of the Farmer as to us.

Strawberry Beds will require attention. Where the runners are not wanted for planting, they should be cut off and thrown away. The ground around the plants must be kept clean, and when the fruit is swelling, if dry weather prevails, they should be watered liberally. The strawberry very soon suffers from drought, unless in deeply trenched, moist soil. Where the plants are grown in rows, as they always ought to be, some straw or grass might be laid along each side of the row to prevent the moisture of the soil from evaporating.

Raspberry Canes should be kept well tied up.—*Gooseberries* and *Currants* must be looked to, and all superfluous rank shoots from the stem or head be removed, as they will injure the crop of fruit.

All fruit trees suffering from a poor soil, may be greatly benefitted by the application of liquid manure a few times. A few inches of the surface soil may be removed, and when the liquid has been applied, replaced. Dwarf fruit trees, with a heavy crop, would be benefitted by such an application, both tree and fruit.

Flower Department.—Dahlias may be planted out any time, now to the middle of the month. Dry roots that have been started, or young plants in pots, will bloom finely from the latter end of August till frost comes, if planted now. We prefer strong plants in pots to old roots—they are apt to give better flowers. The Dahlia should have a fresh, loamy soil, not too rich; too much manure makes rank plants, imperfect flowers, and coarse, unsound roots, that keep badly over winter. If dry roots are planted the crown, where the eyes start, should be two inches below the surface, and a neat stake four or five inches high should be set with the root, that the plant, as it grows, may be tied to it. When young pot plants are used they should be carefully turned out of the pots, without breaking the ball of earth around them, and placed in a hole prepared for them. A good watering should be given, before the earth is all filled in around, and a stake set. The after culture will consist of keeping clean around the plants, cutting off straggling branches, and keeping the plant neatly tied to the stake, for the winds soon break them.

Annual flower seeds may be sown yet for autumn flowering; and Verbenas, Petunias, monthly Roses, Salvias, Heliotropes, Scarlet Geraniums, and other plants for masses in lawns or in flower gardens, may be turned out any time. Annuals raised in the border may be transplanted in a moist day. The flower stems of all plants should be kept neatly tied up, and, when done flowering, cut down and cleared away. Walks must be kept clean of weeds, and lawns frequently mowed, rolled and kept in good order. The way to do all these matters at a trifling cost, is to do them in season.

THE SEASON, CROPS, &c.

THE transplanting season was greatly prolonged, in this section, by the coolness of the spring. Until the 15th or 16th of May we had scarcely one day of usual spring warmth—so that we may conclude that nearly all the planting intended to be done has been completed. We think too, that planters will be more successful than usual on account of the cool, moist weather experienced during the season of planting.

We have at the present moment (May 18,) a fine prospect for a fruit crop. Cherries, Peaches and Plums, are loaded with blossoms. Pears and Apples look well and will be open in a day or two. Apricots have set their fruit finely, and will be ready for the curculio in a few days; but he must be watched and kept off if possible.

The small fruits look equally promising. Mr. THOMAS stated in the April number of the Cultivator that, "through a large portion of Western New York, most of the peach crop has been destroyed by the severe cold of the late winter." We have not found this to be the case by any means, as far as we have observed; on the contrary, all looks as well as usual.

Early spring crops will be later than usual. Green peas were in market on the 15th. Asparagus, Rhubarb, Lettuce and Radishes are becoming plenty, but we have seen none of first rate quality.

The flowering season of ornamental trees and plants is later than usual. Few trees are yet in bloom; except the double varieties of fruit trees, such as the double flowering *Peach*, *Almond*, *Cherry*, *Sloe*, &c. These are all beautiful now. The Pyrus Japonica, and crimson and yellow flowering Currants, are also in bloom, and in a few days we shall have the Lilacs, Viburnums, and a multitude of other pretty shrubs. The Cercis Cananadlusi or "Red Bud" is a beautiful tree, now covered with blossoms of a rich, beautiful purple—and no sign of a leaf yet. When the flowers disappear, then comes the broad, deep, green, luxuriant foliage.

The borders are gay with *Pansies*, red and white *Daisies*, *Primulas*, and some of the dwarf early flowering *Phloxes*—such as *subululata*, *elegans*, *divaricata*, &c. *Hyacinths* are out of bloom. They have had a most disasterous season, cold and frosty, so that they have done little good. *Tulips* are just opening.

* * *

THE DEODAR OR INDIAN CEDAR.

This elegant tree has excited more interest, has had more admirers and more planters, than any other introduced within a century. In England, Scotland, and Ireland, and all over the continent, avenues and plantations of it have been formed with astonishing rapidity. Indeed it surprises us that it has been multiplied to such an extent within so short a period. But when the skill, the enthusiasm and wealth of British cultivators and planters are united, they can accomplish results truly wonderful. In this country it is now attracting the attention of all people of taste, and is being as rapidly disseminated as could be expected from its rarity and high price previous to this time. And now that its hardiness is proved satisfactorily, and the price become quite moderate, we have not a doubt but it will find a place among all collections of ornamental trees.

The Deodar or Indian Cedar.

It is described as a tree of the loftiest class, often attaining one hundred and fifty feet in height, and the trunk thirty feet in circumferance. The branches are spreading and pendulous at the ends, giving it a most graceful outline. The leaves are dense and of a bluish dark green, covered with a glaucous bloom. The wood is compact and almost incorruptible. It has been found as fresh as ever, after being upwards of two hundred years in a building in India. There is no doubt but it will yet become a tree of immense value to all civilized nations, in an economical as well as an ornamental point of view. In England, at Liverpool and around London, and in France, we saw fine specimens, some ten feet high,—and we have never seen a tree possessing greater beauty. Last June we turned out a small plant eighteen inches high into our own grounds, and although it had but a slender hold of the earth, and our winter unusually severe, it passed the winter perfectly safe, and is now starting finely; and so has the *Auracaria*—and we hope, next season, we shall be able to say as much for the *Japan Cedar*, (Cryptomeria,) and many other rare evergreen trees.

OUTLINES OF FRUITS.

Mr. Editor:—We have a perfect right to review a reviewer; and to the motion and prayer of your correspondent H. Y., in the March number, on the "*Outlines of Fruit*," I beg to record my vote in the Negative.

Your *Horticultural Department*, of which the outlines of fruit have been a prominent part, is considered by *fruitmen* to be of the first class, and makes the Genesee Farmer second to no paper in the country, not wholly a Horticultural work. You may rest assured that not every well-informed man in the country knows the value of a good apple, pear or peach; and until their value is known and appreciated, you should not attach blame because he takes no interest in, or lacks patience to second an effort on the part of others to improve the fruit of the country.

H. Y. says "—*those unmeaning uniformities. There is no individual one of them but may serve for twenty varieties.*" I have heard ideas from the *same piece*, and place them here as they should stand together. I once had a hand assisting in setting trees, some fifteen or twenty sorts, and each tree was labelled, who remarked, "this is all nonsense, so many kinds of apples; there is but two kinds, one sweet and the other sour." I have heard persons while eating an apple say "what a fine apple this is, how *mealy* and good." Once a person bought two lots of trees, from different venders, and remarked to one of them, "I like the other man's trees much the best, because they had so *few roots*. I could get them in a much *smaller hole*, and set them out *quicker* than yours."

I trust you will consult your own pecuniary interest, as well as the desire of your readers, and not destroy that department of your work by neglecting to publish outlines of fruit. E. C. F. *Seneca Lake Highland Nurseries, Catharine, N. Y.*, 1849.

Our correspondent may be assured we shall not discontinue the outlines. Our engraver being sick and out of town has this month and last deprived us of several cuts for this department.—Ed.

* * *

Splendid Testimonial to Marshall P. Wilder.—We notice by the proceedings of the Mass. Hort. Society of May 12th, that a *Massive Silver Pitcher*, highly wrought, and chased with fruits, flowers foliage, &c., has been presented to the Hon. M. P. Wilder, who has presided over that Society for eight years. The pitcher bears the following inscription:—

HON. MARSHALL P. WILDER,
President of the Massachusetts Horticultural Society, from
A. D. 1841 to 1849.
This Piece of Plate is presented by the Society, as a testimonial of
respect and appreciation of his valuable
services during the above period.
January, 1849.

No tribute of esteem was ever more richly merited and we are sure the Horticulturists of the country generally who appreciate the labors of such men, will concur in this opinion.

* * *

Read to Improve.—Any young farmer who will make it a point to read a little every day, from some approved agricultural book or paper, will have profitable food for reflection as he treads the furrows—and will find his mind rapidly advancing in useful knowledge connected with his profession.

A PLEA FOR THE BIRDS.

BY L. WETHERELL.

AMONG the general laws, made by the last Legislature of Massachusetts, is one "for the better preservation of useful birds."

It is deeply to be regretted, that the Legislature of the State that has done so much for the establishing of humane institutions, should find it necessary, at this period of her history, to make a law against the *inhuman* practice of destroying "*useful birds.*" Would that there might be a similar law enacted by the Legislatures of all the States of this great Republic. This is a comprehensive law; for all birds are "useful birds"—not excepting even the *Crow*, the least beloved, and the most universally persecuted of land birds. It is true that the Crow, in his eager search for the grub and the cut-worm, has learned to pull up, or to dig up corn, in the spring; and in the autumn, from his fondness of it, and as a small remuneration for his labor of destroying myriads of worms, moles, mice, grubs and beetles, during the summer, he picks a little of the cereal which has matured by the joint labor of the crow and other birds, with that of the farmer. How much better policy to plant a little more, or to employ some of the idle boys to guard the cornfields a few days in the spring, than that these birds should be destroyed by these cruel boys, for mere amusement, or for any other purpose.

What considerate father or guardian can equip his boy with a musket to go abroad into the fields, orchards, hedges and woods to shoot birds! They go out some of them, it is true, professedly for the purpose of shooting what are called, "noxious birds." But they return and exhibit as the fruits of their success not unfrequently a collection of robins, orioles, warblers, &c., &c., which, as it would seem, none but the most heartless barbarian could be depraved and wanton enough to destroy, and yet this is styled amusement. It can be amusement it would seem to none but the grossly ignorant, or to such as are totally destitute of humanity.

The crow, the black bird tribe, the thrasher, the towhe bunting, named *pee-wink*, ground robin, tshe-wink, and the blue-jay, are charged with making depredations upon the corn fields. It is true that some of them must plead guilty to the charge. After the crow, the starling, or red-winged black bird, as he is better known among the farmers, has the reputation of being a great corn thief. He learned the art of pulling up corn in the same way that the crow did, to wit, in his diligent search of grubs. Wilson, the celebrated Ornithologist, makes the computation that each red winged black bird devours, on an average, fifty grubs a day: so that a single pair, in four months, will consume more than twelve thousand of these destructive worms. Then think of the millions of these birds thus employed over the New England, Middle and Western States during the spring and summer, and that they not only destroy an incalculable number of these grubs, but what is still worthy of no small consideration, prevent their increase.

The farmer, the gardener, and the fruit culturist have a thousand times more to fear from the 600,000 species of insects, than from two or three of the 6,000 species of birds. Great numbers of these species feed almost exclusively upon insects. The cedar bird, named also the cherry bird, *so persecuted* by the gardener, because the poor harmless wanderer picks a few cherries from the trees which his diligence and labor have ridden in part from the deadly insects which would otherwise soon destroy both fruit and trees, is, notwithstanding, the gardener's co-laborer and friend.

Are fruit growers generally aware that this bird is the most efficient agent they have in destroying the canker-worm which attacks the apple tree and the elm; and also the slug, which infests fruit and ornamental trees? If they are, why then wage a war of extermination against them? A pair of cherry birds will destroy more insects during the season than two men employed for this purpose—whose efforts, though less successful, would cost the employer two dollars a day—while the birds for a remuneration pick a few cherries—*few*, indeed, compared with the quantity that would be consumed by these two men, whose employment might be the same for the season as that of the birds whose labor is gratuitous.

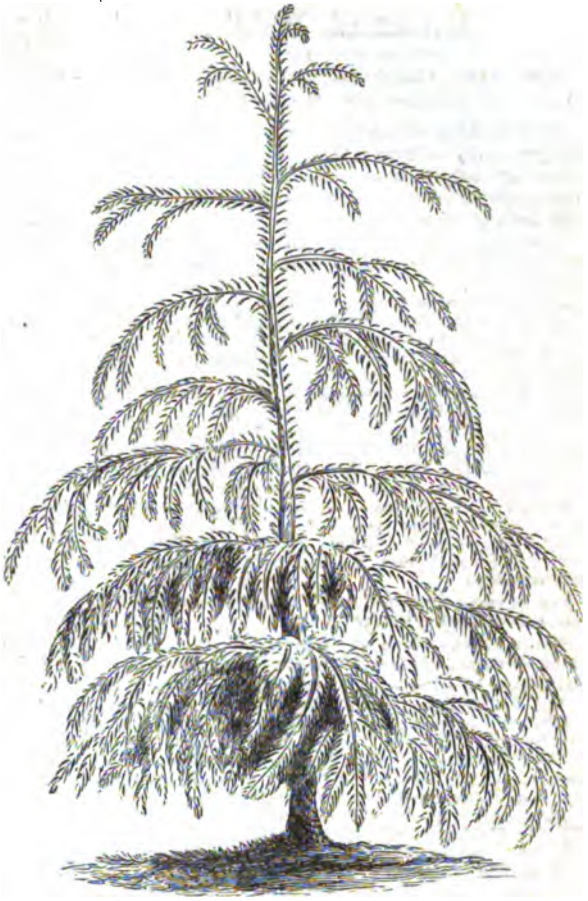
If then, the crows, the starlings, and the cherry birds, the first tribe, for whose destruction bounties or rewards have not been unfrequently offered by both States and private citizens, be such faithful and successful destroyers of vermin, it would seem to be a far more reasonable, and consequently a much easier and better policy, that, a severe penalty should be imposed on all persons who shall be found guilty of destroying the crows; and so of the other birds here named as well as of the many which are generally regarded as harmless, though far less the coadjutors of the tillers of the soil, than these persecuted tribes. Are there not, then, good and substantial reasons why there should be legislation for the preservation of useful birds, so long as man finds pleasure and amusement in their destruction. It would be about as wise a policy for manufacturers and merchants to pray that it might not rain again because some one or more of their number had suffered a little, or much by the flood produced by the storm, as it would be, or is, for the farmer to seek to destroy the birds, because they occasionally pick a cherry, or destroy a little corn—for it matter would little to man whether he had rain or sunshine, were it not for the birds which keep the insects in check, which would otherwise so greatly multiply as to devour every green thing upon the face of the whole earth.

Before dismissing the subject, there is one other consideration that should be mentioned as a plea for the preservation of the birds. And that is, that they do so much by their presence, and by their melodious and cheerful songs to animate the otherwise dull and lifeless scenery of earth. The voice of spring seems to be heralded forth in the notes of these sweet songsters who chase away old Boreas in his, at times, rather reluctant retreat toward his home, the arctic region. What farmer's toil is not rendered more cheerful and light by seeing and hearing the brilliantly plumaged singing birds. The Thresher, sometimes called the Planting bird, sits perched upon the top of some high tree near by, pouring out as it would seem his very soul in a full, flowing, sweet and eloquent strain, as much superior to the notes of the Canary as is his position to that of being made a prisoner with the latter. So of the warblers, the oriole, the robin, and the wood thrush, whose sweet and silvery notes fill the air.

Let, then, the injunction, of "Live and let live," include birds which constitute so charming a link in that wonderful chain of animated being. Then shall this poor plea for the "birds" be fully realized.

SILK.—The quantity of silk used in England alone, amounts each year to more than four millions of pounds in weight!—for the production of which myriads upon myriads of insects are required. Fourteen thousand millions of animated creatures annually live and die to supply this corner of the world with an article of luxury. If astonishment be excited at this fact, let us extend our view to China and survey the dense population of that widely spread region, whose inhabitants, from the Emperor on his throne to the peasant in his lonely hut, are indebted for their clothing to the labors of the Silk Worm. It is truly remarked by Scott's excellent paper, "that imagination fatigued with the flight, is lost and bewildered in contemplating the countless numbers which every successive year spin their slender threads for the service of man."

THE JAPAN CEDAR.



The new Japan Cedar, from a tree six feet high,

WHILE in England we were delighted with this tree, wherever we saw it—in the open ground or in the house. We think it unquestionably the most graceful and elegant evergreen tree of the immense number now cultivated in Europe. It has proved perfectly hardy in England, and its growth is exceedingly rapid, equaling the Norway Spruce. We saw an elegant specimen in the Chiswick garden, nine feet high, that had made four feet growth last season.

The introduction of this tree is quite recent—the first seeds having been received from Mr. FORTUNE, in 1844. He collected them in Shangai, north of China, where it attains the height of one hundred feet. We trust it may prove hardy here, and have but little doubt it will. The accompanying cut, and following remarks, we take from the April number of the Horticulturist:

"The English periodicals abound with notices of this tree, which, along with the *Deodara*, or Indian Cedar, is decidedly the rage in that evergreen loving country.

"The Japan Cedar, *Cryptomeria japonica*, which is nearly allied to the Cypress, is one of the many treasures brought home by Mr. FORTUNE, the Chinese traveller, to the London Horticultural Society. As it grows in the north of China, about Shangai, where the thermometer sinks nearly to zero, and forms large forests on the mountains of Japan, at the height of more than a thousand feet, it follows that it is a hardy evergreen in all temperate climates.

"The English accounts of this tree state, that for beauty and rapidity of growth, it has no rivals among hardy evergreen trees. In the garden of the London Horticultural Society, young trees have grown *four feet* in a single season. It is described by some of its admirers as the "Queen of Evergreen Trees." Its peculiar beauty is in the *graceful droop* of its branches. It is a great favorite in China for *avenues*, growing up 100 feet high, with a remarkably straight stem, and dense and handsome foliage. The wood is said to be very hard, and elastic, and " withstands the most terrific winds or monsoons which sometimes devastate that country. It is employed in China for the high poles, which are everywhere placed at the dwellings of mandarins, to denote their rank, where it lasts for ages."

"The Japan Cedar is said to be as hardy in England as the Deodar Cedar. As the latter tree, even in young specimens, has, in this country, withstood without injury, a winter temperature of 6° below the zero of Fahrenheit, we may safely say that the Japan Cedar, or Cryptomeria, will endure the winters of the middle states, and possibly those of the eastern states, in proper situations, i. e. those sheltered from sudden thawings in winter.

"The soil considered most favorable to the growth of this tree, is a sandy loam, mixed with some peat or leaf mould. Those inclined to plant it where there is doubt of its standing the winter, will take care that the subsoil is *well drained* when preparing to plant it.

"This tree is, of course, yet very scarce in this country. Plants about a foot high may, however, be obtained of BUIST, PARSONS, and other leading nurserymen. ELLWANGER & BARRY have also, we notice, imported a few for sale, and for trial, in the interior of this State. Every amateur will be glad to make trial of a tree that promises to add so much to the beauty of our lawns and pleasure grounds; and we hope, in another season, the Japan Cedar, if found quite hardy, will be imported, so as to be afforded at a moderate price in our nurseries."

* * *

HONEY LOCUST FOR HEDGES.—(To A. EATON, of Benton Centre, N. Y.) Seeds of the Honey Locust may be obtained at any of the seed stores in this city, if applied for in the fall. They may be sown in the spring, as soon as the ground is dry and warm enough to receive seeds, but should be soaked a few hours in warm water. In one year the plants will be fit for hedge rows. It grows very rapidly, and makes a strong and beautiful hedge. We know of no other deciduous plant that will make a thorough hedge fence in so short a time. The objections to it are that it grows too large, but by proper care in cutting, it will endure a very long time.

* * *

CHEMISTRY is the key which unlocks the great laboratory of nature, and shows us how she performs her complicated processes, and produces all her wonderful phenomena.

Agricultural Societies.

NEW YORK STATE AGRICULTURAL SOCIETY.

JUDGES ON THE PREMIUM LIST.

At a meeting of the Executive Committee of this Society, held in Syracuse on the 10th of May, the following Judges were appointed for the Annual Show,—to be held in that city on the 11th, 12th and 13th days of September next:—

On Cattle.—*Short Horns*—Charles Calvert, Riversdale, Md.; R. N. Watts, Grantham, Canada East; Henry Parsons, Guelph, C. W.

Devons.—Richard Gapper, Thornhill, C. W.; John W. Proctor, Danvers, Mass.; Henry Capron, Riversdale, Md.

Hereford and Ayrshires.—M. J. Hayes, Montreal, C. E.; Ira S. Hitchcock, Oneida Castle; Edward S. Massey, Watertown.

Natives and Cross.—James Rees, Utica; Lewis Juliand, Greene; Chauncey W. Beckwith, Cedarville.

Working Oxen.—Jona. Blagden, Washington, D. C.; Israel Bois, Homer; Gideon Ramsdall, Perrinton, Mon. Co.

Three Year Old Steers.—Isaac Putnam, Danvers, Mass., J. C. Collins, West Turin; Calvin Cole, Oxford.

Two and One Year Old.—Ledyard Linklean, Cazenovia; S. W. Holmes, Chautauque; Wm. Church, Coventry.

Fat Cattle.—Aaron Clement, Philadelphia; Thomas F. Devoe, Jefferson Market, N. Y.; Stephen H. Biddlecome, Brighton, Mass.

Fat Sheep.—Clement Leach Eaton; Job Alberger, Buffalo; Robert Fowler, Batavia.

Milch Cows.—John W. Lincoln, Worcester, Mass.; Arden Woodruff, Strykerville; Alonzo L. Fish, Cedarville.

Horses—*All Work.*—Hon. Adam Ferguson, Waterdown, C. W.; Ela Merriam, Leyden; Henry Ehle, Chittenango.

Draught.—Jesse C. Dann, Sackets Harbor; Stewart Austin, Coxsackie; N. Davis, Toronto, C. W.

Blood Horses.—Francis J. Hayes, Cote St. Luke, near Montreal, C. E.; John D. Van Matter, Freehold, New Jersey; John C. Stoothoff, Jamaica, Queens co.

Three years old.—Theodore S. Faxton, Utica; John B. Wheeler, Burlington, Vt.; Henry C. Miller, Hudson.

Two and one year old.—Elias Cost, Phelps; Thomas Willis, Erie, Penn.; Abraham Per Lee, Norwich.

Matched Horses.—James D. Wasson, Albany; Harvey W. Vail, Islip; Henry Delamater, Rhinebeck.

Geldings.—T. J. Marvin, Saratoga Springs; Edward Long, Cambridge; Roswell Reed, Coxsackie.

Sheep.—*Long Wooled*—P. Reybold, Jr., Delaware City, Del.; George Miller, Markham, C. W.; Lewis G. Morris, Morrissiana.

Middle Wooled.—Isaac Dillon, Zanesville, Ohio; S. Wait, Montgomery; Ed. Halleck. Milton.

Merinos.—J. G. Strein, Washington, Penn.; J. F. Gilkey, Kalamazoo, Mich.; Samuel Whitman, Hartford, Ct.; E. C. Russell, Cortland, Ohio; R. C. Otis, Southport, Wisconsin.

Saxons.—John A. Taintor, Hartford, Conn.; Roswell Carter, Chicago, Ill.; Robert R. Reed, Washington, Penn.; M. Hilldebrand, Massilon, Ohio; Robert Colt, Pittsfield, Massachusetts.

Swine.—Myron Adams, Bloomfield; John H. Robinson, Brighton, Monroe Co.; James M. Strever, Taghkanic.

Poultry.—J. D. G. Nelson, Fort Wayne, Ind.; Lewis Eaton, Buffalo; T. C. Abrams, West Troy.

Plows.—A. Van Bergen, Coxsackie; John Brawley, Erie, Penn.; John Stanton Gould, Hudson.

Plowing.—Robert Campbell, Pittsfield, Mass.; Hugh Brodel, Cote St. Peire. C. E.; Wm. Miller, Pickering, C. W.; Horace Hawks, Georgetown; John Mallory, Benton.

Farm Implements—*No.* 1.—Amos Briggs. Schagticoke; Talmadge Delafield, Oakland; Wm. Brownell, Herkimer.

Na. 2.—A. Hyde Cole, Albion; Alfred Fitch, Riga; G. W. Buck, Chemung.

No. 3.—J. A. Wight, Chicago. Ill.; Geo. Buckland, Toronto, C. W.; Charless Lee, Penn Yan.

Butter.—R. Coleman, Astor House, N. Y.; Joseph Cary, Albany; E. R. Evans, Marcy.

Cheese.—Harrison Blodgett, Denmark; Thomas Burch, Little Falls; S. D. Moody, Canton.

Sugar.—Joel Woodworth, Watertown; Horace Davenport, Denmark; Wm. E. White, Walton.

Honey and Bee Hives.—Wm. Howard, Buffalo, Ezekiel Van Dezer Western; Roswell Hinman, Syracuse.

Silk and Silk Goods.—Geo Brayton, Western; John S. Walsh, Albany; H. B. Whipple, Adams.

Domestic Manufactures—*No.* 1.—J. W. Brewster, Erie, Penn.; Geo. J. J. Barber, Homer; Curtis Mozes, Marcellus.

No. 2.—E. S. Salisbury, Belleville; J. J. Speed, Caroline, Horace Moss, New Berlin.

No. 3.—E. Risley, Fredonia; Amos Jones, Hopewell John J. Brinkerhoff, Owasco.

Manufactures.—O. Hungerford, Watertown; Ambrose Wager, Rhinebeck; Wm. Kidd, Rochester.

Shell and Wax Work.—Mrs. E. T. Martin, Willow Brook; Mrs. Eli Burchard, Vernon; Mrs. Le Roy Mowry, Greenwich; Mrs. Harvey Baldwin, Syracuse; Mrs. E. W. Leavenworth, do.; L. W. Hall, Sec'y, do.

Flowers.—A. Thompson, M. D. Aurora; E. S. Brayton. Utica; J. M. Lovett, Bethlehem.

Fruits—*Apples and Pears.*—F. R. Elliot, Cleveland, O. J. C. Holmes, Detroit, Mich.; Chas. Downing, Newburgh.

Peaches, Apricots and Nectarines.—James Dougal, Amherstburgh, C. W.; Henry H. Coit, Euclid, Ohio; J. W. Knevels, Fishkill.

Quinces, Grapes, Melons, &c.—Thos. Allen, St. Louis, Mo. Lawrence Young, Louisville, Ky.; H. Snyder, Kinderhook.

Foreign Fruit.—David Thomas, Aurora; B. V. French. Braintree, Mass.; P. Barry, Rochester.

Vegetables.—James Woodruff, Detroit, Mich.; Robert Harper, Albany; H. C. Tuthill, Kellogsville.

Animal Paintings, Paintings and Daguerreotypes.—T. R. Walker, Utica; E. P. Prentice, Albany; A. Stevens. New York.

Stoves.—C. C. Dennis, Auburn; W. Buell, Rochester. M. D. Burnett, Syracuse.

Miscellaneous Articles.—Joseph Dobbin, Baltimore, Md.; T. D. Burrell, Geneva; Wm. Evans, Montreal, C. E.

Discretionary—*No.* 1.—L. B. Langworthy, Greece; M. L. Dunlap, Dunlap's Prairie, Ill.; A. G. Carl, Jericho.

No. 2.—Henry Fitzhugh, Oswego; J. W. Wheeler, Hyde Park; Robert King, West Farms.

No. 3.—Tracy Pardee, Oakfield; A. Z. McCarty, Pulaski W. Chester, Erie, Penn.

No. 4.—Musical Instruments.—Geo. Dutton, Utica Chas. Wilson, Rochester, Geo. Denton, Buffalo.

Grain, Flour and Wool.—Jacob G. Markell, Waterloo. Moses Eames, Rutland; Augustus Sanford, Norwich.

Foreign Stock.—*Cattte.*—Charles D. Calvert, Riversdale, Md.; Richard Gapper, Thornhill, C. W.; M. J. Hayes. Montreal, C. E.

Horses.—Hon. Adam Ferguson, Waterdown, C. W.; Jesse C. Dann, Sackett's Harbor; F. J. Hayes, Montreal, C. E.

Sheep.—Sanford Howard, Albany; H. Blanchard, Kinderhook; S. H. Church, Vernon Center.

Premiums Open to All.—*Cattle.*—Charles B. Calvert. Riversdale, Md.; Richard Gapper, Thornhill, C. W., M. J. Hayes, Montreal, C. E.

Horses.—Hon. Adam Ferguson, Waterdown, C. W.; J. C. Dann, Sackett's Harbor; F. J. Hayes, Montreal, C. E.

Sheep.—J. P. Beekman, Kinderhook; Sanford Howard. Albany; S. H. Church, Vernon Center.

Committee Reception of Guests of Society.—James S. Wadsworth, Geneseo; Col. Edward Kirby, Brownsville. Lewis F. Allen, Black Rock.

Transportation of Articles over Railroad.—Albany. E. Foster, jr., Rail-road office; Troy and Whitehall, L. R. Sargent, Troy; Schenectday, G. W. Young, Superintendent U. & S. Rail-road; Utica. T. M. Francis, Rail-road office; Syracuse, J. B. Burnet, P. N. Rust; Auburn. J. B. Dill; Geneva, John Fargo; Rochester, Joseph Alleyn. Batavia, M. Beach; Attica and Buffalo, Wm. Wallace. Superintendent Rail-road; Oswego, Wm. D. Stevens.

B. P. Johnson, *Secretary.*

Fairs of County Ag. Societies.—The Fair of the Monroe Co. Ag. Society is to be held in this city, on the 26th and 27th of September.—Saratoga Co., the 11th and 12th Sept. Hon. Samuel Cheever to deliver the annual address.—Herkimer Co., the 6th and 7th of Sept.—Rensselaer Co.. at Troy. on the 25th. 26th and 27th of Sept.—Essex Co., at Keeseville, 18th and 19th of Sept.—Onondaga Co., at Syracuse. 3d, 4th and 5th of October—Litchfield Co.. (Ct..) at Litchfield, 26th Sept.—Windsor Co., (Vt.,) at Windsor, on the 4th and 5th of October.

KINDERHOOK WOOL DEPOT.—The attention of wool growers and manufacturers is directed to the advertisement of H. BLANCHARD & Co.. The business has been conducted by Mr. B. for several years, and constantly increased in public favor.

SHORT HORN CATTLE.—It will be observed, by reference to an advertisement in this number, that Mr. VAIL, of Troy, will offer a portion of his excellent herd of Short Horns, at public auction, on the 13th of the present month. No better stock of this breed can be found in the country.

HORSE POWERS, THRASHERS, &c.—We would refer those of our readers wishing machines of this kind, to the several Advertisements of Palmyra, Albany and Rochester manufacturers.

AGENTS entitled to the Premiums mentioned in our May number, are requested to select the books or implements desired, and advise us how and where to forward.

Rare Evergreen Trees.

WE have fine plants, from one to two feet high, of the following in pots suitable for transmission to any part of the country at any moment. The plants are in a vigorous growing state, and may be turned out into the open ground, without the least check to their growth.

Cedar of Lebanon. [Cedrus Libani.]
Indian Cedar, [Cedrus Deodara.]
Japan Cedar, [Cryptomeria japonica.]
Chili Pine, [Auracaria imbricata.]
Rhotan or Lofty Pine, [Pinus excelsa.]
Cembran Pine, [Pinus cembra.]
*Long Leaved Indian Pine, [Pinus langifolia.]
Dwarf or Mountain Pine, [Pinus pumilio.]
Remarkable Pine, [Pinus insignis.]
Himalayan Spruce Fir, [Abies morinda.]
Douglass' Spruce Fir, [Abies Douglassi.]
Cephalonian Silver Fir, [Picea Cephalonica]
Webb's Silver Fir, [Picea Webbiana.] Pinsapo Silver Fir, or Mount Atlas Cedar, [Picea pinsapo.] *Chinese Juniper, [Juniperus siversis.] *Evergreen Cypress, [Cupressus sempervirens.] *Evergreen Weeping Cupress, (Cypressus pendula.)

(* These we presume will not endure our winters in the open air, without protection.)

☞ Plants of the above will be forwarded to any part of the country. Priced lists furnished.

ELLWANGER & BARRY.

Rochester, June 1, 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are construsted under the immediate direction of the inventor, and *Warranted*.

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years, and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple, substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention.

J. A. HOLMES & CO.

Brockport, March 15, 1849.

An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock, crops in ground, and farming utensils, &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him, Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester

[5tf] JOHN OGDEN DAY.

Kinderhook Wool Depot.

THE success of this enterprize, and the steady increase of business during the past four years, has induced the subscriber to associate with him Mr. THOMAS M. BURT, as a partner in the business. The integrity and correct business habits of this gentleman are well known to many prominent men throughout the State; and for more particular information, reference may be made to R. H. KING, Esq., or to JOHN T. NORTON, Esq., of Albany.

With increased facilities for extending their business, the enterprize will be conducted on the same principles as heretofore:

1. The FLEECES will be thrown into SORTS according to STYLES and quality. 2. A discrimination will be made between wool in good or bad condition. 3. All who desire it can have their clips kept separate. 4. Sales will be made invariably for Cash. 5. The charges will be, for receiving, sorting and selling, one cent per pound, and the insurance, which will be twenty-five cents on $100 for a term of three months. 6. Liberal advances in Cash made on the usual terms.

Wool forwarded from the West and North should be marked H. B. & Co, Kinderhook, N. Y., with the initials of the owners name on each sack, and shipped to East Albany.

H. BLANCHARD.

Kinderhook, N. Y., May 18, 1849.

After the 1st of June the business will be conducted under the name and firm of H. BLANCHARD & Co. Reference can be had to

J. P. Beekman, Kinderhook, N.Y.	C. W. Richmond, Aurora, N.Y
B. P. Johnson, Albany, "	Nath'l. Sawyer, Cincinnati,O.
L. A. Morrell, Lake Ridge, "	Wellman & Co. Massillon, O.
D. S. Curtis, Canaan, "	Freeland, Stuart & Co., New York City.
C. W. Hull, New Lebanon, "	
J. Murdock, Wheatland, "	R. Carter, Chicago, Illinois.

J. W. Sherman's First Premium Grain Drill and
Cultivator and Broadcast Seed Sower.

COMBINING three of the most useful farm implements. Superior to any other grain and seed planter for all kinds of grain or seeds; also a superior corn planter. It will sow broadcast, or in drills or hills, and cover grain, and sow plaster, ashes and all fine manure, broad-cast—or will drill it in the rows in such quantities as desired As a Field Cultivator it works well and is believed to be superior to any other, on all kinds of ground. It sows or plants from the smallest to the largest grain and seeds, accurately. It is the most easily managed; all the tubes can be raised or lowered, or either of them, without stopping the team. Any person capable of managing a team can use this machine and alter it from one quantity to another in one minute. It is durable, permanently constructed, and not liable to get out of order. We do not boast of inventing three drills. We happened to get a good machine the first time, which is more than can be said (truthfully) of some that have invented more, who boast of their worthless articles. We cannot tell of getting 500 made this season for Western New York; it takes time to make a good article. But we will *try* to fill all orders from Western New York and other sections, and warrant our drill the best in use.

We do not tell of selling $25 cheaper than others, for we think we can sell all we can make at a fair price, and we believe our farmers are willing to pay such a price for a good article. We promise to sell as cheap as any other that has a reliable machine, that does the work up right. All we ask of those wishing Planters is to examine for themselves. We are also ready to meet any inventor of Drills on the soil Boasting on paper is one thing; demonstration on the soil another. All we ask is a trial.

To any one wishing further information we will take pleasure in sending a descriptive sheet. We would conclude by just stating that our machine received two first premiums last fall, at the State Fair at Buffalo, on an imperfect machine, not finished. We subjoin the certificate the Committee kindly gave us:

"We the Committee on Farming Implements, No. 1, having J. W. SHERMAN's Field Drill and Cultivator under consideration, consider it the best implement of the class that has been presented, and have returned it as being entitled to the highest Premium.

Buffalo, Sept. 7, 1848. A. OSBORN, *Ch'n.*

I have received the Premium in three Diplomas

All communications should be sent to me at this place and will be promptly answered and attended to.

We shall want a number of agents to sell machines and rights to commence soon. J. W. SHERMAN.

Ontario, Wayne Co., N. Y., April 15, 1849. [5-tf]

Agricultural Warehouse and Seed Store at Buffalo.

AT the request of numerous friends, we have opened an Agricultural Warehouse and Seed Store, and have made such arrangements as will enable us to keep on hand a large and full assortment of implements of any useful kind.

We have also arrangements for Trees and Seeds equal to any other establishment in the Union. Orders and patronage solicited Manufacturers are requested to send us samples of their implements and machines.

T. C. PETERS & BRO.,
Corner Washington and Exchange-sts.

Buffalo, Jan. 1, 1848. [1-5t]

Nursery to Let or for Sale.

THE Subscriber has a Nursery 1⅛ miles from the Erie Rail Road Depot, from the Chemung Canal, on a Plank Road running into Pennsylvania. I propose to lease it, for a term of years, or sell it, or take a partner and carry it on.

Elmyra, N. Y., 1849. DYAR FOOTE.

Important to Farmers and Thrashers.

THE Subscribers ask leave to apprise the Public of a new Machine Shop being opened by them in *Palmyra, Wayne Co., N. Y.*, for the purpose of building *Jessup's New and Improved Thrashing and Separating Machine.* Said Machine having been thoroughly tested during the past season by competent and experienced thrashers. is pronounced by them to be superior to any machine of the kind in use. Its great advantages over others consists in the construction of the cylinders for carrying forward the straw. not liable to be entangled thereby; it operates from one to two horse power easier, and will thrash and clean more grain. with less waste. and do it better, than any other machine now used. Not wishing to boast for ourselves, we take the liberty to publish a *few* of the *many recommendations from others in its favor:*

RECOMMENDATIONS:

Arcadia, August 21st, 1848.

Having used Jessup's Patent Thrashing and Cleaning Machine for the two last and present seasons, I cheerfully recommend them to the use of public as being the best machine of the kind in use. Almost any desirable quantity of grain can be thrashed in a given time. with less power applied than to any other machine of similar construction now in use. This machine is peculiarly adapted for thrashing and cleaning the different kinds of grain without waste, even when the straw is damp. During the time I have used said machine, I have thrashed some fifteen or twenty thousand bushels, and given entire satisfaction

PETER VANDEWATER.

We the undersigned. being acquainted with Peter Vandewater, and having employed him to thrash our crops the present season, do cheerfully concur in his recommendation of Jessup's Patent Thrashing Machine, and believe it to be the best machine of the kind now in use. *Arcadia, August* 21, 1848.

Benj. Bailey,
Samuel Pierson,
Charles Hudson,
David Jewell,
Artemas Hyde.
Bailey Foster,
Silas Peirson.
Samuel B. Reaves,
Hiram Soverhill.

We the undersigned, farmers of Phelps and Arcadia. certify that we have had our thrashing done the past season with Jessup's Improved Machine, and for doing business in a workmanlike manner we think it surpasses any machine now in use; we therefore recommend to those wishing to purchase, to examine this machine before purchasing elsewhere. In our opinion this machine runs one or two horses easier than any other separator now in use.

S. G. Averill,
Wm. M. Butler,
J. M. Horton,
H. D. Williams,
C. H. Wirts,
John Drake,
M. A. Burly,
M. Ward,
R. Williams,
John Wirts,
Jesse Richards,
V. R. W. Horton,
S. Ward.
J. J. Simons,
Moses Ray.

Said Machines are built under the supervison of Mr. Jessup, the Patentee and inventor—and will be furnished on reasonable terms.

We have also thoroughly tested a *New Horse Power*, which we unhesitatingly offer for sale in the fullest confidence of its being as good, if not better, than any other in use.

We also manufacture Straw Carriers. Straw Cutters, Clover Machines. Corn Shellers, and other agricultural implements.

All orders at the shop, or by mail, will receive prompt attention.

FOSTER, JESSUP, & Co.

Palmyra, N. Y., June 1. 1849. [6-1t*]

The Celebrated Horse Morgan Eagle!

THIS truly celebrated Horse will stand for Mares this season, commencing April 30th, at A. S. Davis', in East Rush, on Mondays and Tuesdays; at Sherwood's Tavern in Pittsford. on Wednesdays; at Peter Culver's, in Mendon. on Thursdays; and at Richard Peck's, two miles east of Lima village, on Fridays and Saturdays.

MORGAN EAGLE was purchased in the fall of '47, in Tunbridge, Vt., by J. Henderson, at a great price, for the express purpose of improving the stock of Horses of this country. He is about 16 hands high and well proportioned; is a bright bay, and for symmetry and action cannot be surpassed.

Morgan Eagle and the celebrated trotting Mare Lady Sutton, of New York, were sired by Old Morgan Eagle, of Vermont.

PREMIUM!

We will award a premium of $25 for the best Colt sired by Morgan Eagle this season Competitors for the premium must exhibit their Colts on the 2d Tuesday of October, 1850, at East Rush. Judges to be selected by owners of the Colts.

HENDERSON & AUSTIN.

Honeoye Falls, April 23d. 1849 [42m]

Rochester Novelty Works.

WE are manufacturing a great variety of SHELF HARDWARE and heavy goods in this line, which we keep constantly on hand, all warranted. which we will sell to dealers lower than they can buy them in New York. We will also make to order any description of CASTINGS, small or large, for Agricultural Machinery, patent articles, &c.. of brass or iron. We are prepared to anneal small work so that it can be finished or drilled. Our castings are very superior in style and finish, almost as smooth as if polished. All orders properly attended to, and patterns furnished if required.

SMITH, BADGER & CO..
Office and Depot No. 3 Buffalo-st.

Rochester, Monroe Co., N. Y., April 1, 1849. [4-3t]

Hathaway's Patent Huller and Cleaner,

FOR Cleaning all Kinds of Grain, Clover and other Seeds. Patented July 5, 1848. These Machines embrace most essential improvements and have been thoroughly tested by many intelligent wealthy farmers in different parts of the State, who speak of their operation in the highest terms of praise, and express their entire satisfaction with them.

Hathaway's Huller and Cleaner is warranted to Thresh and clean Wheat. Barley. Oats, Rye. Peas, Beans and Buckwheat without injuring the berry. It will also thresh and clean from the straw fit for use or market two bushels of CLOVER SEED per hour, on an average, without rotting the clover straw. Timothy, Mustard. and other small seeds can be cleaned with it, with unprecedented speed and celerity.

These machines will make a better and faster separation than any others now in use, and a saving of more than 150 per cent. in the expense of cleaning clover seed and in the saving of the seed. compared with any other.

They are cheap in price—simple in construction—durable in materials—easily kept in order—handled or removed. There is nothing now in use resembling, or that can compete with them.

They can also be used as Fanning Mills, by hand power, in a barn or elsewhere.

Refer to the gentlemen whose names are attached to the following certificates. Many others might be added if deemed necessary; but those named have the machines in use and know what they recommend.

CERTIFICATES.

I hereby certify that I have used one of Hathaway's machines for three years past, and have thrashed and cleaned from three to four hundred bushels of wheat per day and have no hesitancy in saying that they will thrash and clean from three to four bushels of clover seed per hour. I have thrashed and cleaned eighteen bushels in five hours. I confidently recommend them to my fellow agriculturists.

Rock Stream, March 1, 1849. HORACE HENDERSON, J. P.

Mr. B. G. H. Hathaway—Dear Sir: The machine I purchased of you in November last. operates to my entire satisfaction. I have thrashed and cleaned from the straw twenty-five bushels of clover seed in a day; and from the chaff. five bushels per hour—also, from the straw, three bushels per hour. In thrashing and cleaning of grain, it works admirably.

Canandaigua, March 7, 1849. REUBEN J. SUTHERLAND.

Mr. Hathaway—Dear Sir: The machine I purchased of you. in December last. operates as you recommended; I have thrashed and cleaned from the straw, from fifteen to eighteen bushels of clover seed per day on an average; also, in thrashing and cleaning of grain, it gives good satisfaction. SOLOMON ERNST.

Lockport, Feb. 18, 1849.

Applications for the right to construct and vend these machines in any part of the United States. as well as all inquiries and applications for machines will be attended to as promptly as possible.

B. G H. HATHAWAY.

Rock Stream, Yates county, N. Y., April 18, 1849.

Monroe Nursery, on the Ridge Road.

THE contract between the subscriber and Naaman Goodsell, for the cultivation and management of the Monroe Nursery being now rescinded, and the relation growing out of it dissolved. the undersigned is now prepared to execute orders for trees, shrubbery, &c.

The undersigned is determined by his industry and attention to business. and by the care he shall use in cultivating the different varieties of fruits, to merit the confidence of his friends and the public.

The Monroe Nursery has been favorably known for a great many years, and has been in the possession of the subscriber for the last five years, during which time he has been to an enormous expense in refitting and restocking the premises with all the most desirable and modern variety of fruits. He solicits a share of the public patronage.

CHARLES POWIS, Proprietor.

Greece, April 5th, 1849. [5-tf]

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall. opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch. we intend going more extensively into all the branches of our business. We shall keep constantly for sale. all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill. (the most perfect and substantial Drill in use.) the celebrated Massachusetts Eagle C Plow, Drags. Cultivators. &c., &c.. all of the most approved patterns and construction. and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence. we have one of the largest, most carefully grown and best selected stock of FIELD. GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment.

RAPALJE & BRIGGS.

Rochester, May 1, 1849.

Short-Horns at Auction.

THE subscriber being about disposing of 50 acres of his farm for public purposes, will offer at public sale 30 head of Short-Horn Durham Cattle. (being about one half of his present herd) on the 13th day of June next. at 11 o'clock in the forenoon, consisting of yearlings. two year and three year old heifers and cows ; and 11 young bulls. from 10 months to 2½ years old. Great care has been observed. and considerable expense incurred in selecting and breeding this stock with reference to purity of blood and dairy qualities. The awards of the N. Y. State Ag. Society. and the N. Y. American Institute, attest the estimation in which this stock is held wherever it has been exhibited for competition. About 8 head of the above cattle are a purchase made from E. P. Prentice. Esq.. of Albany, last *May*, being all the Short Horns of that gentleman, and the product of his four selected cows, retained at his public sale. These animals have the strain of blood of the herd of Mr. Whittaker, of England. from whom Mr. Prentice made his principal importations. The other part of the lot of young animals partake largely of the blood of the celebrated herd of Thos. Bates, Esq.. of Yorkshire, England, from whom my importations have been derived, and are mostly of the get of my imported bull Duke of Wellington, and my prize bull Meteor. The heifers and cows are and will principally be in calf with these bulls.

For the information of Southern gentlemen who may desire to introduce Durham stock in that region, and who entertain the opinion that that climate is uncongenial to its successful propagation there. I here introduce an extract from a letter I received from A. G. Sumner. Esq.. editor of the South Carolinian. dated Columbia, 25th January. 1849—"The bull you sold Col. Hampton of this State gives him great satisfaction ; he is a fine animal. and I only wish you could see some 20 head of his get now in his yard. They are the most superb yearlings ever bred at the South."

Further particulars, and the pedigrees of the stock will be issued one month previous to the sale. A credit from 6 to 18 months will be given.

Troy, N. Y., April 1, 1849 [4-3t] GEO. VAIL.

The Genuine Morgan Horse, Gen. Gifford,

WILL stand for mares the ensuing season. on Mondays and Tuesdays at the stable of Geo A. Mason, two and a half miles north-east of Jordan ; Wednesdays, Thursdays and Fridays at the stable of D. A. Munro, in Camillus ; Saturdays at the stable of D. A. Munro, in Bellisle.

Terms—$10 to insure. Mares that are not placed directly in in charge of the subscribers, must be regularly returned through the season. All persons parting with mares before the usual time of foaling, will be held for the $10. Pasturage furnished by either of the subscribers for 3 shillings per week. Accidents and escapes at the risk of the owners.

We can confidently assert that in size. build and in style of action, *General Gifford* more nearly resembles the original Morgan Horse than any other stallion, except his sire, the Gifford Morgan.

The Morgans, as a breed, are so universally known and esteemed, that we deem it unnecessary to repeat their merits. General Gifford was sired by the Gifford Morgan, his dam a pure Morgan. A full description of the origin of the Morgans, and pedigree of Gifford Morgan, may be found in the Albany Cultivator for 1846 page 19.

April, 1849. [4-3t] MUNRO & MASON.

The Norman Horse.

THE celebrated Norman Stage or Diligence Horse, "LOUIS PHILLIPE," will stand the ensuing season at the Spring Mills, in the Village of Union Springs, on the east side of Cayuga Lake, ten miles south west from Auburn. Louis Phillipe was raised by Edward Harris, of *Morristown*, N. J., from full-blooded parents, selected in France, and imported by himself, and is a perfect specimen of that class of horse. a class celeberated for their quick powerful action. great hardihood and long life. His color is a beautiful dapple gray with a splendid heavy flowing mane and tail. He is 15 hands high, 5 years old, and weighs about 1150 pounds.

THE "CAYUGA CHIEF."

At the same stand will be found this noble Horse of the Surprise and Childers' descent. A beautiful dappled bay colt just coming 5 years, over 16 hands, of powerful close make, round and admirably proportioned.

Both these horses show a fine stock of colts. Gentlemen sending mares from a distance may be assured that they will have such attention as they desire and on the most reasonable terms.

Terms—$6 at the 1st leap, and then $5 to insure, payable on the 1st of 3d month (*March.*) following.

Communications may be addressed to ROBERT B. HOWLAND, Union Springs, Cayuga Co., and will receive prompt attention. [4-4t]

Agricultural Implements and Mechanics' Tools.

I AM now manufacturing a few of those MANURE FORKS so much sought after by the FARMERS. Also. *Hay* and *Straw Forks* of all kinds warranted. Also, a full supply of *Spades*, *Shovels*, *Hoes*, *Axes*, *Scythes*, and almost every kind of MECHANICS' TOOLS always can be found at my store, No 3 Buffalo-st., first building west of Main-street Bridge, Rochester.

[4-3t] R. D. BARTON.

The Valuable Horse, Young Morgan,

WILL stand the ensuing season on Mondays, Tuesdays and Wednesdays at the stable of the subscriber near Clyde ; on Thursdays at the stable of Abner C. Gillett. in Junius ; on Fridays and Saturdays at the stable of J. Landon, in Lyons.

Terms—$8 to insure a foal.

Young Morgan is of a bright bay color, without white, 16 hands high, and weighs 1200 pounds. He will be four years old next July. and is not surpassed by any horse in this State. He was sired by Morgan Tiger, owned by Wm. May, of Palmyra ; his dam was Noah Yale's Beauty, got by Sir Charles Duroc.

Clyde, April 1. 1849. [4-3m] I. M. GILLETT.

The Imported Horse, Consternation,

WAS bred by MATHEW HORNSEY, Esq., of Stiltenham Yorkshire, England, in the year 1841. He was imported by T. C. Arbott, Esq., in the year 1845. He is now owned by J. B. Burnet, Esq., of Syracuse, and will serve a limited number of mares the ensuing season at his own stables near the village of Geddes, two miles west of Syracuse. The very best pastures, with plenty of water and the most secure fences will be provided for mares from a distance at two shillings and sixpence per week. No mares taken except at the risk of the owner.

Consternation is a beautiful unfading dapple brown color, stands 15 hands and 3 inches high, and is a very sure foal-getter. He is remarkable for his vigor of constitution, his developments of bone and muscle, and his intelligent, kind and docile disposition. He is compact and short legged for a thorough-bred horse, yet of a *rangey* and majestic figure. His chest and flank are deep and full. His action is graceful, but at the same time proud and commanding. But what is perhaps of more importance, he is descended through all the generations that are recorded in the English stud books from horses of great distinction and of the purest blood. There is no horse living that can boast a more illustrious pedigree. His immediate ancestors were of uncommon size and elegance of figure. Confederate, although an eminently successful race horse was kept by his breeder, Earl Fitz William, to get carriage horses and hunters, for which he proved very valuable. Curiosity, the dam of Consternation, was equally large, and even handsomer than Confederate. All his ancestors were animals of good disposition and entirely free from blemishes, so far as it can be ascertained. The following is a brief copy of his Pedigree : By Confederate ; dam Curiosity, by Figaro, her dam by Waxy. Confederate was bred by Earl Fitz William ; got by Cornus, by Cervantes, by Sir Peter, by High Flyer, by King Herod. by Flying Childers. Figaro was got by Hap Hazard, by Sir Peter, out of *Mrs.* Harvey, by English Eclipse, &c., &c.. &c.

As to the character of Consternation's stock, reference is offered to Ira Hitchcock, Esq., Oneida Castle, Henry Rhodes, Trenton, A. Ford or John Best, Rome, and to farmers generally in that vicinity.

Terms—$5 in advance, and $5 additional if the mare is got in foal [4-3m] J. B. BURNET.

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The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

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American Poulterer's Companion, by Bement. $1.
American Veterinarian. by Cole. 50 cents
Buist's Kitchen Gardener. 75 cents.
Buel's Farmer's Companion. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Downing's Fruits and Fruit Trees of America $1 50.
Domestic Animals, by R. L. Allen. Cloth, 75 cts. ; paper, 50 cts.
Farmer's and Emigrant's Hand-Book. $1.
Fruit Culturist, by J. J. Thomas. 50 cents.
Gardener's Farmer's Dictionary. $1 50—leather, $1 75.
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Catechism of Ag. Chemistry and Geology. 25 cents.
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⁂ These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired

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Market Prices of Agricultural Products.

New York, May 23—7 P. M.

Flour and Meal.—We notice a further improvement in the lower grades State and Western, with a fair demand for the East and local trade. and a moderate inquiry for export to complete cargoes. Sales 5 550 bbls. 4.12 *a* 4.19 for fine, 4.44 *a* 4.50 for Troy, Brooklyn and common State, 4.50 *a* 4.56 for mixed Michigan and good Oswego, 4.56 *a* 4.75 for favorite Indiana and State, 5 *a* 5.12 pure Genesee, 5 *a* 5.62 fancy Ohio, 5 37 *a* 5.62 fancy State, 5.50 *a* 5.87 extra Ohio Of the sales some 500 bbls. fine was for export. Rye Flour quiet, 2.94. Meal steady. Jersey, 2.87 *a* 2.94.

Grain.—Limited inquiry for Wheat, mostly for export. Sales 4.000 prime Western red, on private terms. and 2,360 prime Ohio, for milling, 1.05. Rye steady. Sales 2,500 at 58 delivered. Barley inactive, 52 *a* 54. Oats in good demand, 34 *a* 35, for river and canal. Corn fine and in good demand for export. Sales 50.000 bushels at 58 for handsome southern white, 58 *a* 60 for low to high mixed western, 60 *a* 60½ for southern yellow, 62 *a* 63½ northern and Jersey yellow, closing firm.

Provisions.—Good demand for Ohio Pork. Holders able to realize better prices. Sales 1500 bbls. at 9 87 *a* 10 for mess, and 8.25 for prime. Beef without change. Market still unsettled and quotations nominal. 100 bbls. sold at 8.25 *a* 8.50 for prime, and 11 *a* 11.50 for mess. Cut meats in good demand, in part for Philadelphia market. Sales 450 bbls. and tierces 4d. for dry salted shoulders, and 5 *a* 5½ for hams, and 4¼ for pickled shoulders, and 5¼ *a* 5½ for hams. Beef hams 16.50. Lard firm and in poor demand. Sales 550 bbls at 6¼ a 6½ common, 6¾ primeand 7 for extra. Butter steady at 10 a 15 for western, and 13 a 17 for Orange county. Cheese steady. Old and good prime, 6½ a 7½.

Rochester, May 24, 1849.

Flour $5 per bbl. Wheat. Western. 80 to 90 cents—Genesee $1.09. Corn 44 *a* 50c. Rye 53 Oats 31.

Seeds.—Clover $3.75 *a* $5. Timothy $1.50 *a* $2.25. Flax $1.

Provisions.—Pork (mess) $12 *a* $12.50 per bbl. Beef $4 *a* $5 per cwt.—mess $7 *a* $8 per bbl. Butter in demand at 12½ cts per lb. Cheese, good, 7 *a* 7½ cts per lb. Eggs 10c.

In Buffalo. May 22, sales of Wisconsin and Wabash wheat at 75 and 80 cents—and corn in store at 45 cents.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office. See list of works and prices in advertising department.

Also—complete sets of the Farmer from its commencement, (except the 2d volume.) substantially bound, which we will sell at 50 cents per volume. These volumes are not suitable for sending by mail—but we have copies of vols. 6, 7, and 8, bound in paper covers, which may be mailed.

Back numbers (and volumes) of the Farmer promptly supplied to all new subscribers.

Wheeler's Patent Horse Power and Thrashing Machine.

HAVING increased facilities for the manufacturing of the above Machines in this city, the public can be supplied with them at short notice. at wholesale and retail.

To those farmers who wish the machines to sell. and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale. and warranty, see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist ; also. catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them. and having been extensively used since 1841, are known to be durable—and are much improved in several respects.

The cost of thrashing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season :

Five men in thrashing time to thrash and clean. averaging 200 bushels per day for market,	$5 00
Two horses.	1 00
Boarding 5 men and two horses, at 3s,	2 63
	$8 63

Amounting to a litile over 4½ cts. per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependent upon others for labor or machines.

While his expenses, when he hired machines were never less than the following :

For thrashing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine,)	2 00
Six men. (besides two with machine,)	6 00
Boarding all hands and horses,	5 25
	$25 75

Amounting to about 10½ cents per bushel. And if to this be added the average loss by imperfect thrashing and separation of grain from straw, more than with Wheeler's Thrasher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15½ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of grain-growing farmers for thrashing ; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention.

HORACE L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

Woodbury's Horse Power and Separator.

THE Subscribers, having erected extensive works, for manufacturing Woodbury's Patent Improved Horse Power and Separator, are prepared to furnish a machine to order, combining greater simplicity, durability, and operating much easier than any other in use. The Horse Powers are warranted, and operated on wheels, thereby saving three-fourths the usual time in setting up—and we will warrant it, together with the Separator, superior to any in use.

Communications for further particulars, (post-paid.) cheerfully responded to.

J. & D. WOODBURY.
Rochester, N. Y., June 1, 1a49. (5-3t*)

THE GENESEE FARMER,
Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

Five Copies for $2, and any larger number at the same rate, if directed to each subscriber. Eight Copies for $3, if addressed to *one person only*—and any larger number, directed in like manner, at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE. The circulation of the Farmer is from FIVE to EIGHT thousand LARGER than that of any other agricultural journal published in the United States.

☞ The Farmer is subject to newspaper postage only.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—JULY, 1849. NO. 7.

Farm Husbandry.

REARING, KEEPING AND FATTENING DOMESTIC ANIMALS.

THE science of breeding, keeping and fattening domestic animals is too much neglected in the United States. Few practical farmers have the courage to take hold of the somewhat forbidding subjects of comparative anatomy, physiology and organic chemistry, with a resolute purpose to understand the living organism by which grass, hay, grain and roots are transformed into beef, mutton, pork, butter, cheese and wool. The natural machinery for effecting these important changes of vegetable into animal substances, deserves to be studied with great care, in order to make the most of the food consumed by every animal kept on the farm. There is no class that has reached perfection in yielding the largest product in flesh, milk or wool, for the aliment consumed in the course of its life time. All are fed unequally—sometimes too much and sometimes too little; and, again, they suffer from food more defective in *qaulity* than deficient in *quantity*. One often sees store pigs eat the dung of over-fed fatting hogs; and in this city, half-starved cows voraciously devour the solid excretions of corn-fed carriage horses. In rearing swine they are commonly under-fed about three-fourths of their lives, and over-fed the other fourth; so that in the aggregate not more than one-half as much meat is elaborated from the food taken into the stomach of pigs as might have been formed.

All animals demand a certain quantity of nutritive matter to preserve them in a normal condition, or to prevent their losing weight and becoming poor and poorer. In all cases where the object is to form meat, it is bad economy to keep animals for weeks and months, as thousands of farmers do, without gaining a pound of flesh, although they necessarily consume a large amount of food. This forms the manure; i. e. 100 lbs. of solid matter taken into the stomach yield 40 in dry dung yard and urine, and no more. If we feed much above the point of normal nutrition, a portion of the aliment fails to enter the lacteal vessels which surround the alimentary canal, and through which digested matter passes into the blood vessels to nourish the system. This excess of food, whether partially digested or not, passes on through the bowels and appears as feces or dung. There is always an immense loss in seeking to make animals excessively fat. Of course, when two or three prices are realized for such beef, mutton or pork, the loss in the waste of food, is paid by the consumer. Our object is to develope the true economy of making meat, regardless of the fact whether it is sold or consumed by the producer. This consists in providing a reliable supply of suitable food, so that the animal from its birth to the day of its being slaughtered, should steadily gain in weight. So long as it is adding to the length and size of its bones and muscles—growing—its system will be little inclined to take on fat, if not over-fed. Excessive stuffing and no exercise, bring the development of bone and muscle to a premature ripeness. They cease to expand, and you have a fat lap-dog or a pocket china pig. Habitual starving will also bring the carcass to maturity before it attains to its proper size. Skilful feeding implies that one never gives *too mnch nor too little*; and has the food well adapted to the constitution and habits of the animal, whether a horse, sheep, cow or swine.

This system of feeding is not so easy as some may imagine; for the quantity of grass that will grow on a given number of acres in pasture and meadow in a dry or wet season is very unequal. Hence, in the one case the farmer will have more feed than stock; and in the other more stock than feed. If one must err in the matter, it is usually better to have an excess, rather than a deficiency of forage. Grass left to rot on the ground in a pasture or meadow is far from being lost. It improves the soil.

After having taken all due pains to make two blades of grass and corn grow where only one of either grew before, the stock grower should study closely the business of breeding domestic animals.—The leading idea in this art and science is, to select the best males and females from which to propagate and improve the race. This rule applies alike to the equine, bovine, ovine and swine families. In each genus there are several species, in each species there are numerous breeds, and in the several breeds not a few varieties. It is no part of our duty to attempt to write up one species or breed of animals, whether of cattle, horses, hogs or sheep, and to write down another. Practical farmers know best what kind of stock will suit their land and markets. Our advice, if offered, would be quite as likely to miss as to hit the wants of the reader. There is more difference in the value of breeds than many are willing to admit, and less than some breeders of improved races claim. A yearling of the short horn stock, less than 13 months old, was weighed in this city a few days since and brought down 675 pounds. This heifer which was not fat, is the offspring of Mr. Clay's importation. Another heifer of the same family weighed 718 lbs. when 15 months old. The mother of the calf first named belongs to the lady with whom the writer boards; and this valuable cow gives some 20 quarts of rich milk a day. There are Devons near here from the herd of L. F. Allen, Esq., which are much admired for their beauty.

The Texas Telegraph of May 24, published at Houston, says that wool grown in that State, and sent to New York market has brought $1 25 a fleece this season. Men are buying large flocks in Mexican States, Missouri, Tennessee and elsewhere to drive into the northern parts of Texas. Sheep husbandry is beginning to excite considerable attention at the south and south-west.

Believing as we do, that this Republic is likely to enjoy great prosperity during the next ten years, and receive large accessions to its population and wealth from Europe, the demand for good breeding animals will be steady and at quite remunerating prices.—Whoever will take due pains to improve his cows, sheep, horses and swine, cannot fail to be well paid for his trouble.

LIMESTONE SOILS.

Every month's experience and observation increase our esteem of limestone lands. We have studied the growth of wheat and other crops on granitic and sandstone soils, and compared them with the products of lime lands, with which we have long been familiar. The latter not only contain more *lime*, but more potash, soda, magnesia, chlorine, phosphorus and sulphur—more of all the earthy elements of cultivated plants. Having become satisfied that such is the fact, we were for a time at a loss to account for the circumstance that, lime rocks yield other minerals on their disintegration as well as the one that forms the main bulk of this product of nature. The remains of animals with which they abound, that once lived in the ocean, furnish unmistakable evidence that all, or nearly all ordinary lime rocks were slowly built up in the bed of an ancient sea. The same minerals which makes the stoney covering of an oyster, serves under favorable conditions to form many strata of precipitated lime rocks in which to embed the oyter, and a thousand other animals and plants.

These depositions carry down and fix permanently in the growing rock, not only the carbonate of lime, but an appreciable quantity of all the minerals dissolved in the water of the ocean. A moment's reflection will satisfy the reader that this water must abound in all the constituents of vegetables and animals, or they could not flourish in such prodigious numbers in this medium. By analyzing water taken from the ocean, we find that it contains every substance necessary to organize either a whale, a tree, or a man. It abounds in potash, soda, magnesia, iron, chlorine, bone earth, gypsum, and compounds of carbon and azote.

When the bed of the ocean is elevated by volcanic action into islands and continents, and dry land is formed, we find the best soils for the support of terrestrial animals where marine deposits were most abundant. And these vegetable and animal remains are most abundant where sedimentary rocks were slowest in forming. Most sand rocks appear to have been deposited rapidly; for they usually contain little beside mere traces of lime, potash, soda and other minerals dissolved in sea water. Shales, such as may be seen along the terraces above Geneseo in Livingston county, and most limestones appear to have been built up very slowly. There are some fresh water deposits of lime, both ancient and modern, that contain little beside the pure carbonate of that mineral. There are one or two deposits of this character in Cattaraugus county, and one on General Harmon's farm in Wheatland. Prof. Peter of Kentucky, gives the following as the composition of the limestone near Lexington, remarkable for the excellent soil which it forms in that vicinity. He says:

> During the past month or two, in my leisure moments, I have submitted to analyses, several specimens of the Kentucky Blue limestone, and have been much gratified to find my anticipations realized in relation to its agricultural value, as will be seen by reference to the results given below.
>
> Specimen No. 1, is of the hard grey limestone; it was dug out of a well in the city of Lexington; it contains geodes lined with brown spar, pearl spar, calc. spar and fluor spar and the usual fossils; its specific gravity is 2.45 in a dry specimen. On analysis, it was found to be composed of the following materials, viz:

Carbonic acid	38.675
Phosphoric acid	1.350
Sulphuric acid	807
Lime	47.046
Magnesia	900
Alumina and oxide of iron	9.850
Fine sand and silicates	1.790
Moisture and loss	1.552
	100.000

> Specimen No. 2, from the hard thin layers which are more superficial than the first in this locality, yielded:

Carbonic acid	40.53
Phosphoric acid	36
Sulphuric acid not estimated.	
Lime	50.97
Magnesia	66
Oxide of iron	32
Alumina	15
Sand and sillicates	6.32
Moisture and loss	49
	100.00

> In addition to these ingredients, potash and soda were obtained from the limestone, whenever the proper processes were employed; in one case as much as 0.0487 per cent of potash; in another, 0.0058 per cent.

The above extract is copied from the May number of the Albany Cultivator. In the June number of the American Agriculturist a gentlemea in Winchester, Va., says that he raised eighty-three bushels of corn per acre, without manure, on a piece of ground which had been irrigated for several years by a "limestone spring."

The rivers Euphrates and Nile, not less than the Genesee in New-York, and the Cumberland in Tennessee, run over lime rocks. These valleys are remarkable for their fertility. On the contrary, all granite regions are characterized by comparative sterility. Granite, unlike sedimentary rocks, have been melted by intense heat deep in the earth, and crystalized on cooling, under great pressure. All this class of rocks decompose slowly, and from comparatively thin, poor soils. They usually lack lime and all the other minerals held in solution by the waters of the ocean. Granitic formations show no signs of organic beings, either animal or vegetable.

The fair inference from the above remarks would seem to be, that salts of lime, potash, soda and magnesia are indispensable to the growth of crops.—Every farmer whose soil lacks lime, should take measures to remedy the defect in the cheapest way possible. In many places gypsum, common salt and wood ashes can be had on such terms as will warrant their use for agricultural purposes far more extensively than is now done. The salt which can be obtained by evaporating sea water, will some day be extensively consumed as a fertilizer. Nor will the salts extracted from the soil and wasted in the liquid excretions of domestic animals be always regarded as of so little value.

AGRICULTURAL EDUCATION.

BY AGRICOLA.

THE subject which is now attracting much attention, not only in this State, but in many of the States of our Union, is the education of farmers' sons for their profession, that of Agriculture. The prejudice which has too long existed among farmers, and which it must be admitted, has arisen from a wrong idea of the education proposed, is fast giving away to the light which experience is bringing to bear upon this all important matter. No one thinks of preparing his son to be a Physician, Attorney, or Divine, without providing the means for his acquiring a particular knowledge of the studies best calculated to prepare him for the pursuit he is to follow. When we urge the same considerations upon the farmer in regard to the education of his son, for the pursuit of Agriculture, it is not unfrequently said—"What more is necessary than to learn the lad in the field the routine of farm labor—the practices which I have pursued as to the manner of preparing my land—the time of sowing and planting?" This is all important, and we advocate no system of education that will dispense with it. Suppose we should in the case of the physician adopt the same rule. The young man, instead of pursuing a course of study by which he is familiarly and thoroughly instructed in the complicated machinery of the human body, the laws which regulate and govern diseases, the peculiar nature and habits of disease; begins at once to visit patients with the physician, pays no attention to the teachings of science and the researches of others; he might eventually acquire information that would be useful, but how much less likely to be successful, than one who, in addition to this practical education with his instructor at the bedside, had enjoyed the benefits of a thorough education previous to entering upon the active duties of his profession. May it not safely be affirmed, that every man in community would prefer the one who had *combined with practice, the thorough preparation of himself* by all the aids which science and the experience of others had afforded him?

It can be hardly necessary in this day of light and knowledge to attempt to show that there is much for every farmer to learn from science, to aid him in his work. The nature of soils, their constituent elements, their adaptation to particular crops, the quality of manures as determined by analysis, the effect of heat and cold upon vegetation, and many other things which can be only certainly known through the agency of science. What, may it not be asked, is to prevent every farmer who shall be thoroughly instructed from availing himself for practical purposes of these advantages? The researches which have been made by scientific men, have developed many interesting and important facts—and the time is not far distant when many more will be brought to light, which will greatly lessen the labors of the farmer, and enable him with economy to adopt a system of farming that will remunerate him liberally.

Perhaps it may be asked, what system, if adopted here, would thus aid the farmer? Without at this time giving what I suppose would be a system in every respect well calculated to accomplish such a result, it may be sufficient to say—that a school to prepare young men for the duties that are to devolve upon them, should be so arranged as to give them a thorough course of education, combined with its practical adaptation to the entire work of the farm, even in the most minute portions of labor. To accomplish this, a farm of liberal extent must be connected with the institution, where experiments could in the first place be carefully made on some small portion of it, and when satisfactorily tested, be carried into practice in the general culture of the farm. An opportunity must also be furnished of testing the qualities of different breeds of cattle, horses, sheep, and swine. How little is now really known by the great body of our farmers in relation to these matters. Who is there, from actual trial and experiment, is prepared to say which, of all the breeds of cattle, is best adapted to this State, for the Dairy or for the Shambles? Has a trial and comparison been made between the different breeds called *Improved*, and the Native Stock, so that it can be said, *this* is the best for the farmers of New-York? I answer, No.—And I would ask, is it not important that these questions, so important to the farming interest, should be determined? And would not an institution, discreetly managed by a judicious, intelligent and thoroughly qualified practical man, in time work out for us a solution of these questions? So, too, with regard to horses, sheep, and swine—the above remarks are equally applicable.

There are now in this State a large variety of grains in use—each has its advocates—and yet is it not true that it was decided there are some varieties superior to others, and better adapted probably to our climate and soils? And where shall these questions be settled more satisfactorily and certainly than at an institution with a liberal farm, of different varieties of soils, where a series of experiments could be carried on with all the varied grains, for a term sufficient to test their qualities in every respect? There are other matters all important to be ascertained, and which at present are but little attended to, at least so far as the great body of the farmers are concerned. I allude to a rotation of crops, and application of manures, best calculated to give profitable returns to the farmer, while it secures to him the constant fertility of his soil. Where could this be better ascertained than at an institution where a series of experiments with different crops, in different rotations, and with varied manures, carefully analyzed, could be carried out. In each of these cases, time is necessary to obtain satisfactory results—and the State, at an institution of this kind, could secure such results as would in the end greatly add to the prosperity and success of the farmer, in the management of his farm.

Permit me to caution my readers not to expect too much at once from an institution in every respect rightly adapted to the wants of the farmer. Time will be required for it to develop its advantages. The work of improvement is not the work of a day or of a year. Experiments, to be useful, must be long continued, often repeated, before they can be relied upon—and although a young man trained in an institution thoroughly, will himself be prepared to do great good, yet the great practical benefits to the farmer as to the general course of his operations, both as to his crops, manures and animals, must be a work of time—and cannot be hastily decided with safety. Time for experiments to be thoroughly tested, time for the investigations to be in every respect carefully made, must be allowed. Let this be borne in mind, and I doubt not an institution, under the charge of properly qualified instructors, men of mind, men of practical adaptation to the wants of the age—not mere thorists or fancy men, would eventually secure the approbation of all, and would be crowded with the young men of our State; and would annually send forth many in all respects well qualified to discharge their duties as farmers, and also prepared when called into public life to discharge their higher duties as representatives of their profession, the great producing class of our country.

Should I have leisure, and should you not have more important matter for your paper, I design to pursue this subject, and give in detail the course to be pursued at an institution which, in my judgment, would be well designed to accomplish the great work now needed,—the *Thorough Education of the Sons of Farmers.*

CULTIVATION OF THE MAPLE.

Each distinct species of trees, like each distinct species of animals, requires to some extent its own appropriate food. Hence a soil that will produce one kind of trees in perfection, will not always produce another. Hence, also, a young tree can hardly be made to flourish where an old one of the same kind has lived and died; because the former took from the soil the elements necessary to the growth of the whole species. (The case of a young shoot growing up from an old root, may be regarded as an exception, because here the nourishment is drawn by an old root that is constantly extending itself into a new soil.) Hence, too, a second growth of timber on the same soil, is almost always different from the first, except as above. To this may be added the fact, that the cultivation of the same kind of grain, on the same field, for several years in succession, impoverishes the soil more than if it had been subjected to a rotation of crops. And hence, again, neither a tree, nor any other vegetable, can be made to thrive in a soil which does not contain the appropriate elements, nor can fruit be raised on an inappropriate soil.

The maple it is well known contains a large amount of potash; and a soil that is destitute of this element, or that contains only a small portion of it, will never produce a thrifty tree, till the deficient element is supplied. I have known many trees to die, or drag out a feeble existence, evidently from no other cause than the want of the proper elements in the soil; and I have also known trees to flourish on an uncongenial soil when supplied with their appropriate food. A few years ago I set out several maple trees, around some of which I threw a quantity of ashes, leaving others without any. The difference in their growth was soon manifest, not only in the amount of growth, but also in the length of time that they continued to grow: the former surpassing the latter in both respects. Hence,

To promote the growth of the maple, (and other trees of a similar nature and under similar circumstances,) *give them potash.* It may be given in the shape of ashes, weak lie, soap-suds, &c., whenever there is evidence of a deficiency in the soil. If proper attention be paid to this subject, I believe we shall much less often have complants of the slow growth of the maple. H.—*Down East, April,* 1849.

MR. VAIL'S SALE OF SHORT HORN CATTLE.

A part of the stock of George Vail, Esq., of Troy, was offered for sale at public auction, at his farm, near Lansingburgh, on the 13th ult. There was a large attendance of gentlemen at the sale.—Among others, we noticed R. L. Allen, Esq., one of the Editors of the American Agriculturist, and A. Stevens, Esq., of New York city; L. G. Morris, Morrisiania; Hon. A. Van Bergen, Coxsackie; Messrs. Prentice, Tucker, Howard, McIntyre, and B. P. Johnson, Esq., Sec'y State Ag. Society, Albany; Messrs. Kirtland and McCullock, Greenbush; T. Hillhouse, Watervliet; Mr. Ogden, Quebec; Mr. Jean, Lewis Co.; Messrs. Jessup and Drinker, Penn.; Col. D. D. Campbell, Schenectady; Mr. Starkweather, Maine; Gen. Wool, U. S. Army; Gen. J. J. Viele, Troy; Amos Briggs, Esq., Schaghticoke.

Mr. Vail gave, at his cottage lately erected on his farm, a fine collation during the progress of the sale, where every thing was in the best style, and the gentlemen in attendance were highly pleased with the arrangements, and all seemed gratified. The sales were at fair prices, and such as we presume will be deemed encouraging to breeders. We give a list of sales and purchasers, so far as obtained.—There may be one or two omissions. The numbers are from the catalogue:—

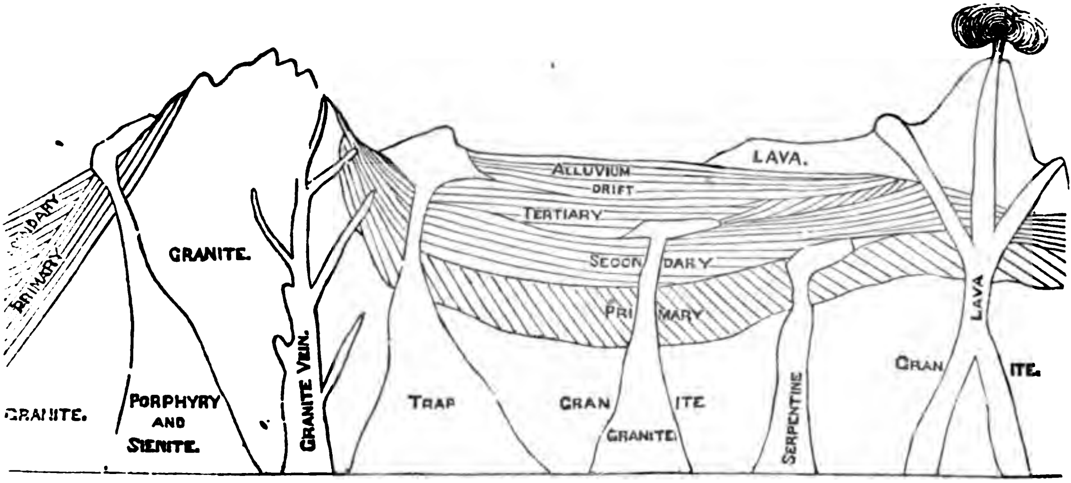
COWS AND HEIFERS. PURCHASERS.

No. 1. Sally, red and white, 9 years old, Mr. Niles, Washington county, N. Y., ... $110 00
Her calf, 2 weeks old, Mr. Percival, Waterville, 37 50
" 2. Judy 2d, white, 3 y'rs, Drinker, Jessup & Co., Pennsylvania, ... 75 00
" 4. Queen 3d, roan, 4 y'rs. old, Col. D. D. Campbell, Schenectady, ... 135 00
" 5. Countess 18th, roan, 3 years old, Mr. Jean, Carthage, Jefferson Co., ... 60 00
Her calf, Red Lady, No. 17, 2 months old, Mr. Jean, Carthage, Jefferson co., ... 25 00
" 6. Victoria 2d, light roan, 5 years old, Messrs. Drinker & Co., Pennsylvania, ... 105 00
" 7. Fanny 2d, Red and white, 3 years old, Mr. Jean, Lewis Co., ... 90 00
" 8. Ariadne 4th, red and white, 2 years old, Mr. Burguyn, North Carolina, ... 105 00
" 9. Sophia 2d, red and white, 2 years old, Mr. Burguyn, North Carolina, ... 105 00
" 13. Charlotte 2d, principally red, 2 years old, Mr. Ogden, Quebec, ... 100 00
" 16. Queen 5th, roan heifer calf, 2 months old, Mr. Burguyn, North Carolina, ... 50 00
6 heifers were sold to Mr. Starkweather,—at what pricc, not ascertained.

BULLS.

" 18. Beppo, white, 3 years old, Mr. Holton, Vt., .. 87 50
" 19. Brutus, red, 2 " Col. D. D. Campbell, Schenectady, ... 135 00
" 20. Belvidere, roan, 1½ year old, Mr. Remington, Philadelphia, ... 150 00
" 22. Victor, white, 2 years old, Drinker & Co. Pa., 90 00
" 23. Nimrod, roan, 1½ year old, Starkweather, .. 147 50
" 25. Minor, red and white, 1½, Harrington, Troy, 60 00
" 26. Albion, red and white, 1 year old, T. Hillhouse, Watervliet, ... 75 00
" 28. Essex, red and white, 1 year old, H. R. Burguyn, North Carolina, ... 80 00
" 29. Lenox, white, 1 year old, H. R. Bvrguyn, ... 85 00
White Bull calf, Mr. Jean, Lewis Co., ... 30 00

Cure for the Botts.—Take a quart of sweet milk; warm it, and sweeten it with sugar or molasses, and give it to the horse. About half an hour afterwards, give a pint of strong brine. The botts, it is said, will eat the former and be distended by it, and the latter will then destroy them. B.



IDEAL SECTION OF THE EARTH'S CRUST.

Agricultural Geology.

The well-informed farmer should have some knowledge of the science of *Geology*. Without it, he can have no correct ideas as to the origin and peculiarities of soils in different localities; and of their natural adaptation to certain crops, and lack of adaptation to others. In connection with this article, the reader will see an ideal section of the earth's crust, from its surface down to the region whence melted minerals are forced up by a mechanical power, too large for circulation.

Rocks are best studied under two general heads: First, Those that were melted by heat, and cooled to attain the form in which we see them. These are denominated *Igneous Rocks*, from the Latin word *ignis*, "fire," because fire was an active agent in bringing the matter that forms such rocks into the peculiar conditions in which they appear. Second, Those that were deposited like sediments in water, compressed and consolidated by great weight into hard masses. Such are called *Aqueous rocks* from *aqua*, "water," and also *Sedimentary* rocks.

Among the igneous rocks, *granite* is generally the lowest in the earth, and by far the most abundant.—In the section which we have given granite, will be seen to underlie the several formations denominated *Primary, Secondary, Tertiary, Drift, Alluvium* and *Lava*. The latter coming from an active volcano is presumed to run down its cone and cover the highest aqueous deposite, whether it be the alluvium of a river, or other recent deposition from water. It is a singular fact that some of the best soils in the world are formed of the debris of lava, which was devoid of all organic matter, and brought up thousands of feet from Nature's mighty furnace, whose fire burns on from century to century with undiminished intensity. Taking the hint from dame Nature, agricultural chemists have burnt granite till it would crumble into powder when treated with a dash of cold water, and finally give up to growing plants its fertilizing elements.

Rocks formed by ancient volcanoes are called "*Trap*," as will be seen in the drawing. The word trap is derived from *trappa*, which means a stair or step. Greenstone and basalt belong to the trap family. Melted matter injected into fissures in mountain masses of granitic and sedimentary rocks appears as veins of granite, serpentine, porphyry, syenite and other minerals. Syenite differs from granite in having horneblende take the place of mica. The last named mineral is called isinglass in some sections of country. Granite is composed of the three well known minerals, quartz, felspar and mica. Porphyry is distinguished by its large crystals of felspar.—There are several varieties of this famous classic rock. *Serpentine* contains about 40 per cent of magnesia. It is essentially a silicate of that base.—Among the Primary rocks *gneiss* is the most important. It is simply stratified granite—the consolidated debris (fragments) of the parent unstratified rock. When granite is decomposed, as well as disintegrated, sand, shale and slate rocks are produced—the former from quartz and the latter from felspar and mica. Primary lime-stone is also formed from the decomposition of crystaline rocks which contain that mineral.

Secondary rocks are a numerous family. They are conveniently divided into five systems; all of which abound in the well preserved remains of extinct races of animals. The lowest in the catalogue is the *Silurian* system. Above this is the Coal-bearing system; then the Salt-bearing; Oolitic, and Chalk systems. These, when entire, are several thousand feet in thickness.

Tertiary strata are divided by Lyell into four groups, to which he gives the names of *Eocene, Miocene, Older* and *Newer Pliocene*. These terms, derived from the Greek, we will not stop to define.

Above the tertiary strata lie the Drift, which is the same as the diluvium of some geologists. It is the loose earthy matter above all solid rocks, as it was left at the time when islands and continents were last elevated by volcanic action above the surface of the ocean. So far as rains, snows, creeks, rivers, and lakes, have transported this moveable earthy matter, or the debris of exposed rocks, and deposited it in new layers, since dry land appeared as we now see, these latest deposits or strata are called *alluvial* beds, or *alluvium*. Such strata abound in the remains of plants and animals now living on the continent. The alluvial and drift formations are most worthy of the attention of practical farmers.

THE HORSE.—IMPROVEMENT IN BREEDING.

Although the improvement in the modes of traveling, resulting from the application of steam, may in many sections of our country, diminish the use and the value of fine horses, still the horse will always be of incalculable importance to us. Any thing therefore, that may tend to enhance his worth, by improving his character, will be thought useful.

The intrinsic value of the horse, consists in his *power*, *speed*, and *endurance*. And as he is, to a great extent, the subject of taste and fancy, his highest value is attained, when he unites beauty of form, with these three requisites. But every farmer knows, he is not to expect the pear from the thorn bush, nor the pippin from the wild crab apple. But then these stocks will produce the pear and the pippin, if such scions are introduced. Since, then, the same expense of care, culture, feed, and time, is needed to sustain and rear a four years old horse worth $60, and one worth $100, is it not astonishing that farmers, who spare no expense to obtain the best quality of grains, grasses, and roots for seed, should still employ as sires, the low bred dung-hill at twenty shillings, instead of the brave and noble blood horse worth twenty dollars. The result in such case, as a general rule, must necessarily be, the colt will be a twenty shilling colt, instead of a twenty dollar colt, if nature proves true to her principles.

Many farmers do not reflect sufficiently, or judge correctly on this subject. They seem to think, a half blood sire, derived from a blood horse and *common dam*, may produce as fine stock, as the full blood horse himself; whereas, *he cannot half so good.* Being only a half blood himself, he can infuse into his progeny only one fourth of the good qualities of his sire. His stock is only quarter bloods. No farmer, desirous of making the greatest gain in perfecting his stock, will use any horse as a sire, who cannot claim to inherit, in the line of his dam, as well as of his sire, *Power*, *Speed*, and *Endurance*; the three items which give value to the horse. Hence it is, that the pedigree of our blood horses is given in the line of the dam, instead of the sire. It is to show, that the valuable blood of the horse, derived from his sire, is not deteriorated by any impure, low blood, derived from the mother. A little reflection therefore, will satisfy the farmer, not to breed from a horse, (although his sire may have been good,) in the hope of greatly improving his stock, if he cannot claim excellence also, from the blood of his dam, as well as of his sire. In this particular, American Eclipse excelled any horse of his day; and to this source was he indebted, in a great degree, for his matchless powers. His dam was got by "Messenger," whose stock, for power and endurance, has proved equal, and often superior, to that of any horse ever brought to this country. Her dam, by a son of "English Eclipse;" next to "Childers," the fleetest horse ever known. His sire, "Duroc," was by "Diomed;" the best horse of his day—deriving his excellence from judicious crosses, blending the best strains of English and Arabian blood.

It is perfectly idle for a farmer, who has a mare of good size, of fine qualities and blood, to raise a colt from a common horse worth only $65 to $80, at four years old; when he can, with the same expense of care and feed, rear one worth $120 to $150, by resorting to a better sire, at a cost of a few dollars more. And even if his mare is in some respects inferior, he should still resort to horses of high and celebrated blood,—of large size, just proportions, and fine speed,—horses, superior in those very particulars in which his mare is deficient. A half blood filly from such a cross, would probably make a valuable stock mare, producing colts of great worth, if bred from the superior blood horse.

Every farmer should have one or two good brood mares. We have the experience and testimony of intelligent men, that brood mares may be steadily and safely used until within a few days of foaling; and very soon after. They should not be improperly used and abused, by extreme, sudden, violent efforts. But it will not injure them nor their foals, to do constant, reasonable labor. In addition therefore, to accomplishing the ordinary service of a span of horses on the farm, they may produce the farmer annually, a pair of colts.

It should here be remarked, that much of the value of our colts depends on the care and keeping we give them. We err greatly on this point. Colts generally, are neglected the first winter. Their growth is retarded, and their forms are injured thereby.—They should be kept in the best manner, the first year; should be kept constantly thriving. Their forms will then be properly sustained, and their points and proportions be finely developed. Nor should they be fed on the ground, but in racks so posited, as to require them to extend and elevate the neck and head.

Dutchess County, in this State, has derived a large revenue for half a century, from the sale of her valuable horses. Spans of horses bred there, have been sold in New York, from five hundred to one thousand dollars.—And multitudes of single horses from fifty pounds, to one hundred pounds each. They secure these results at an early period, by perfecting their stock of brood mares, in the use of such imported horses as Messenger, Highlander, Paymaster, Drone, Badjazette, and others; not hesitating to pay $200 or more, to horses of such character and blood.

As "like produces like," the brave and noble blood horse is expected to give the index of his character to his progeny. To decide whether he has "power, speed, and endurance," he is put to trial on the race course. In a greater or less degree, his *courage*, *resolution*, *temper* and *constitution*, as well as his form and proportions, are imparted to his stock.—The farmer who would make gain by breeding colts, should look to these things. His colts will always sell, if they have size and speed, even if less perfect and beautiful in form. By blending the Arabian blood, with that of the English race horse, the product has been considered, as having attained the highest degree of perfection. It has united to the size and bone of the English race horse, the round, smooth, beautiful form of the Arabian, together with his hardiness, fleetness, and ability to endure fatigue. By such crosses, the fleetest and best horses have been produced, that have been ever known. And in the use of such horses can our stock be soon perfected; but it cannot be done, by a resort to low bred horses, who have no blood on the side of the dam, and who are removed to the third and fourth cross, from the pure blood sire.

There are two leading purposes for which we rear colts. One is for the plow, and one for the road. For the plow, stout, heavy, compact built horses are needed, with no special regard to fleetness. For the road, as for stages, pleasure carriages and the saddle, in addition to size, power, and form, ***high courage***, and ***fleetness or speed***, are indispensable. If the farmer therefore, designs to rear a colt for market, he must resort to a sire either celebrated himself, or, in the line of his immediate ancestry, for fine action, and great speed as roadsters ; in the hope that he will impart these properties to his stock. If for the plow, he will look for a sire possessing a kind, docile, gentle temper ; of good size, large bone, and great muscular powers. As the stock will be, in a good measure, characterised by the sire, he will look for such qualities in the sire, as are especially adapted to the uses and purposes he has in view. If these few hints should influence the farmer to reflect on this subject, and be the means of inducing correct impressions, my purpose will have been answered.

Rochester, N. Y., June, 1849. L.

HEAVY FLEECES, AND HOW OBTAINED.

Eds. Genesee Farmer:—I have just sheared my sheep this year, twelve in number. *The twelve sheared eighty-five pounds and four ounces.* The weight of the sheep after shorn, together with the weight of their fleeces, I send you.

Weight of Sheep.		Fleece		Weight of Sheep.		Fleece.	
No. A.	87 lbs.	5 lbs.	15 oz	No. G,	98 lbs.	6 lbs.	9 oz.
" B,*	79	7	5	" H.*	73	6	11
" C,	121	10	10	" I.	87	5	5
" D,	87	5	12	" J,	88	5	11
" E.	84	5	8	" K*	87	5	14
" F,*	79	7	0	" L,	160	13	0

The whole weight of the sheep was 1,030 lbs. ; which would be an average of one pound of wool, to every twelve and a half pounds live weight of the sheep. The wool was not *cleaned* of course, but was *well washed* on the sheep before being shorn. The average weight of their fleeces would be 7 lbs. 1⅜ oz. C. was a yearling buck, and L. a two year buck. Those marked *, yearling ewes, each of which has raised her lamb. The remainder were ewes, each of which raised her lamb this season. All but the yearlings were sheared last year. Thus from twelve sheep, I have 85 lbs. of good marketable wool, and ten good lambs. Seven of the above were Paular Merinoes, including the two bucks, and the remainder about half bloods. The sire of most of the above sheep was from Col. Randalls' flock of Cortland Co., owned by R. D. Palmer, Esq., of this place.

If any one wishes to know how I raised my sheep to such heavy fleeces, I would say: in the first place, I keep but few, and keep them well ; and secondly, I select those that shear the heaviest fleeces every year, for myself. When I commenced, my flock would not average four pounds. But by the use of the before mentioned sire, and the purchase of a few ewes, (which would not shear five pounds each,) and always selecting the heaveist shearers for my own use, they now average over 7 lbs. I believe I can get much heavier fleeces yet. You will see my yearlings shear heavier in proportion than the older ones. One yearling ewe 7 lbs. 5 oz., which is the heaviest I have ever had, and another 7 lbs. These sheep had good pasture last summer, and in the winter good hay and two quarts of oats per day. S. P. Chapman.—*Clockville, Madison Co., June*, 1849.

The Mountains of Segar, in Arabia, produce frankincense; and those of Safra the balm of Mecca, from the amyris opo-balsamum, which in the early ages sold for its weight in gold.

LIME AS A MANURE.

The following remarks on the action of Lime, and its application to the soil, are worthy the attention of practical farmers. They are extracted from an Address before the Yates Co. Agricultural Society, by John Delafield, Esq.:—

" Lime exists in plants in various proportions, viz: 32 per cent of the ashes of oakwood is lime; 27 per cent of the ashes of poplar is lime ; 14 per cent. of the ashes of peas is lime ; and 4 per cent. of the ashes of our wheat plant is lime. Lime is an essential constituent of wheat. It *must*, therefore, be in our soils, or our wheat never can be matured. Lime, therefore, is a *direct food* for wheat, and so also for other plants. This important element of our soil possesses several qualities most essentially and highly beneficial to the farmer. For instance, where applied to heavy clay soils, it renders them more open and easily worked, admitting the action of the atmosphere.

In all soils containing the sulphate of iron, lime will decompose the sulphate of iron, and thereby form plaster of paris, a material well known. When we apply lime in its fresh or caustic state it acts as a solvent, destroys the texture of matter in contact with it, or changes its nature. But when by exposure to the air this power is lost and it becomes slacked, then it is food direct for plants.

Now as to the best method of using lime, farmers are not agreed ; and with some hesitation, I will state my practice and give my reasons. We see and know that twenty bushels of wheat, if produced from a single acre, will take from that acre about *seven* pounds of lime ; then, as a bushel of lime weighs about seventy-two pounds in a caustic state, it will weigh, when slacked, about 100 pounds by the absorption of water ; therefore, *one bushel* of lime is sufficient for *fourteen acres* of wheat or thereabouts ; but as this supply is for one crop only, and as weeds and other vegetation will rob the wheat of its due share, I would apply ten bushels to the acre, and feel that it is sufficient for four or five years.

It is true that farmers in this country have applied from 60 to 200 bushels per acre, and there may occasionally be a farm where such a dose may do good, but more likely to do harm ; at any rate, for the reasons above stated, it seems a wasteful and expensive system. For light soils, I would recommend a mixture of lime and muck—say one bushel of lime to a cubic yard of muck—applying 20 to 25 bushels of this mixture to an acre. But never mix lime with your manure heaps ; this is a ruinous practice, because it expels from your manure its chief power ; it destroys the ammonia, a salt which it is our aim to preserve."

Hens eating their Eggs.—In addition to the directions given on this subject in the April number of the Farmer, allow me to add, " Give them animal food." They require animal food as well as lime. Give them scraps, offal, fish (not salted,) &c. They will eat no more than they need. It would be well if hens that are confined in a pen, or small yard, could be let out each day an hour or two before sunset, that they may pick up bugs, worms, grass-hoppers, &c. Dig up the soil in their yard and let them scratch in it. H.

Ifdustry.—" There is more pleasure in sweating an hour than in yawning a century."

HEDGE FENCES.

Messrs. Editors:—I noticed in your June number a communication headed, "Hedges *vs.* Wire Fences," in regard to which you remarked that you would like to hear from other correspondents on this subject. The writer recommends the use of Italian Privet, Arbor Vitæ, and Red Cedar, for fences. The Privet, &c., will make an ornamental hedge around lawns, as a division for gardens, &c., but the man who plants Italian Privet, or Red Cedar, or Arbor Vitæ, as a hedge to protect his fields or garden from the inroads of cattle, will learn wisdom from his sad experience, and the cattle will have the benefit of his blunder.

In another article a correspondent talks of "*the sections where live fences are a forlorn hope, owing to their destruction by mice.*" Now, I know of no such place, and if there is such an one, it must be in the "*regions of perpetual snow,*" or some other outlandish "*region.*" I believe that, in any place where trees and shrubs grow, native shrubs can be found that will make good protective Hedges. In England more than a score are used for hedging—all perhaps intermixed in the same hedge. The Alder, the Elder, the White and Black Thorn, the Bramble, and many others I have often noticed in the same hedge. In our country, so extensive, and consequently presenting such a variety of soil and climate, plants must be used suitable to the locality; and I believe, when proper attention is given to the subject, each section will furnish its own hedge plants in abundance. The editor of the Southern Cultivator says that in Georgia the Cherokee Rose makes a hedge that is a sure protection against the inroads of man and beast. The *Norway Spruce* will make a good protective hedge, and the mice never trouble evergreens.

Now, I will give you my model for a beautiful protective hedge. Plant the Norway Spruce, say three feet apart, and between each plant a Prairie or some other free-growing running rose, and I will warrant a hedge that, for strength, beauty and durability, will be unequaled by any *wire* or *rail* fence. Any attempts to go through or over it, will be truly a "forlorn hope." More anon. Rustic.—*Rose Lawn, N. Y., June*, 1849.

FEEDING AND MANAGING MILCH COWS.

The grasses, particularly the clovers, are the best summer food. When these begin to fail, the deficiency may be supplied by green corn, which is very sweet, and produces a large quantity of milk, of excellent quality. The tops of beets, carrots, parsnips, and cabbage and turnip leaves, are good. Pumpkins, apples, and rôots, may be given as the feed fails.—Give only a few at first, especially apples, and gradually increase.

Roots are of great importance when cows are kept on dry fodder. Potatoes, carrots, beets, turnips, parsnips, artichokes, and vegetable oysters, are good.—The last three and cabbage and turnips keep good in the ground through the winter, and are fresh and fine in the spring, before the grass starts.

Potatoes produce a great flow of milk, but it is not very rich. A little Indian meal is good with them, to keep up the flesh and give richness to the milk; and this is the case with beets and most kinds of turnips, as they tend largely to milk. A little oil meal or flaxseed is excellent, in addition to the Indian meal, to keep up a fine, healthy condition, and impart a rich quality to the milk, and gives a lively gloss to the hair of cattle, and softness and pliancy to the skin.

In all cases of high feeding in winter, particularly when cows have but few roots, shorts or bran are excellent to promote digestion and keep the bowels open. Three pints each of oil and Indian meal, or two quarts of one and one quart of the other, is as high feed in these articles, as cows should ever have. On shorts, bran and roots, they may be fed liberally. Four quarts of Indian meal, in a long run, will dry up and spoil the best cows, so that they will never recover.

Carrots are among the very best roots for milch cows, producing a good but not very great mess of rich milk, and keeping the cow in good health.—Parsnips are nearly the same. Ruta-bagas are rather rich, and keep up the condition. To prevent any unpleasant taste in the milk from feeding turnips, we salt freely on them, and milk night and morning before feeding with turnips. Cabbage turnip, (or turnip-rooted-cabbage-below-ground,) has no such effect. It resembles ruta-baga, is raised in the same way, and yields as much or more.

Some keep cows in the barn, by night, in the warm season. They are saved from storms, and more manure is saved. There should be good ventilation in hot weather. Cows are much better for being kept in the barn nearly all the time in cold weather. To drink freely of cold water, and then stand half chilled to death, is highly injurious. But they should go out a little while daily, in favorable weather, and be driven around gently, for exercise. Inaction is death to all the animal race.

Cows and other cattle are badly managed. They are not *watered*, in short days, until ten o'clock in the morning and their last chance for drinking is about four in the evening. Thus they go sixteen hours without drink, and during that time they take nearly all their food, which is as dry as husk. They suffer to a great degree from thirst, and then drink to excess. As a remedy, give cattle a part of their breakfast, and then water them, and water again after finishing their morning meal; and if kept up, water at noon, and at night. If it be too much trouble to take good care of stock, then keep less, and they will be as productive and more profitable, if well managed. We have fed sheep that had constant access to water within eight or nine rods, and after eating thirty or forty minutes in the morning, they would all go and drink.

Milch cows are injured by being driven far to pasture, especially in hot weather, and still more if hurried by thoughtless boys. — [*Cole's American Veterinarian.*

Cure for the Heaves.—Not long since, in conversation with a gentleman who was driving a fine horse, he informed me that his horse had recently been cured of the heaves, (with which he had been severely afflicted,) in the following manner: He took a quantity of rye bran, five or six quarts at first, increasing gradually to a peck, wet or moistened it with warm water, and gave it to his horse. He continued this for a few weeks, increasing the temperature of the water each day, till in a short time he applied it *boiling hot*. The horse improved in condition, and was soon entirely cured. n.

Wisconsin has an area of 31,511,360 acres, and a population not exceeding 300,000 persons.

CHEESE FACTORIES IN ASHTABULA CO., OHIO.

The editor of the Conneaut Reporter has been out rusticating, and gives some interesting items touching dairy operations in that section. He says such is the large and growing demand for cheese and butter, that where a few years ago two or three cows only were kept, the same occupants now number their 40, 50, and 60 cows—and at this time there is an increase of quite one-half over the number last year. It appears from the editor's statement that a new system of cheese-making has been successfully established, consisting of "Cheese Factories," as they are termed. He thus speaks of two of them now in operation in the midst of the heavy dairies:—

C. C. Wick, Esq., of Wayne, one of our most enterprising and business men, has recently erected his buildings and put in operation his "dairy," for the manufacture of cheese. He commands the product of 1,100 cows, owned in that and adjacent townships, and employs men and teams, who every morning take prescribed routes varying from five to ten miles each, and gather the "curds," which are neatly sacked by the dairymen, and then brought to the factory, where the process of "cheese making" is completed.

This furnishes employ for a large number of men and women, and by the aid of recent improvements and machinery, much of the labor requisite is rendered light, more convenient and simple than the usual mode. He had last week about 3,000 cheese on hand, made within about thirty days, and for beauty and fine flavor, they are not to be excelled. The weight of "curds" daily received, amount in the aggregate to some 3,500 lbs., and the number of cheese made daily about 75, varying somewhat as regards size. They are put up in sacks, and intended for the English, West India, and California trades, and vary from 15 to 35 lbs—the former, we believe are intended exclusively for the California market.—Wayne has long held a reputation for producing cheese equal to any other township, and friend Wick intends that the products of *his* dairy shall bear impress of being equal if not superior to any that have been sent from this country. In addition to this there are many large and fine dairies among the farmers. At Richmond, Merriman Barber, Esq., has another "Factory," and situated so as to command the daries of that town, Dorset, Andover, and a portion of Cherry Valley. He receives the products of about the same numder of cows, and makes about the same weight of cheese daily, and carried on in the same manner of Wicks, but his cheese are more uniform in size, averaging 26 or 27 lbs., each—are put up in the best possible manner, and will command the highest rates in the home or foreign market.

By the adoption of this system, it is made advantageous to the farmers, as they contract in the spring for their "curds," which continues for the season, and are thus enabled to estimate very nearly their amount of resources, without reference to a fluctuating market. The prices paid for curds the present season is 3½ cents per pound, deducting therefrom the expense of teams for gathering, which receive a stipulated sum.

* * *

True glory consists in doing what deserves to be written—writing what deserves to be read, and making the world happier and better for having lived in it.

PEAS AND PEA BUGS.

H. Y., in the March number of the Farmer, says: "We would like to know what advantage A. H. promises himself by keeping peas corked in a bottle for two years. The objection to sowing buggy peas is not that they are distributed in the field, as the number must be utterly insignificant, but that the bug destroys the germ," &c. To this I reply that in my article in the February number, I had sowing peas in the *garden* in my mind, and not field peas—and that I do not recognize the truth of H. Y's assertion that the number must be "utterly insignificant." If sown early it is nearly equal to one bug to a pea, and if it is worth while to get rid of one curculio with a plum, it is worth while to get rid of one bug to a pea. I am not sufficiently acquainted with the natural history of the pea bug to know if it is propagated in any other way—if not, by destroying the entire brood for a year, we would diminish the number, and by a series of experiments would get rid of the evil. It would of course require more seed to be sown of the peas kept for the first two years, for the bugs would have destroyed some of the germs; but no bugs would be resown for future multiplication, and instead of the pea bug spreading from the garden to the field, if *all* would try the remedy, in a few years we should have peas without bugs, as they were formerly.

I last year sowed three kinds of peas, to determine which was the earliest variety. They were the Prince Albert, Landreth's Extra Early, and the June Peas. They were all sown on the 28th of March. The first two were gathered for the table on the fifteenth June, and the last on the twenty-third June. The Prince Albert appeared to be about one day earlier than the Extra Early; but the Extra Early is the largest, and of the two I should think the best variety for general culture.

This year I sowed on the 31st March two rows of Extra Early peas side by side, the seed in one being taken from the largest and earliest pods of last year's crop, and the seed of the other from peas taken when the vines were pulled up at the close of the season. The difference is very manifest, the vines of the first row being, at this time, full three inches higher than those in the second.

Meadville, Pa., May, 1849. A. H.

* * *

The two Systems of Farming.—Under a low standard of agriculture, the object of the farmer is to collect the natural produce of the soil with the expenditure of as little money or labor as possible. But under a high standard he does not grudge expense of labor nor of manure, in order to obtain a proportionate increase of produce; and he studies to obtain this by cultivating crops congenial to the soil by growing them in such order that its natural powers shall be turned to the best advantage.—*Selected.*

* * *

The Earth is the great nursing mother of all plants; they in their turn minister, directly or indirectly, to the nutrition and sustenance of animal life; the lamb and the kid feed upon herbage, the direct growth of the soil; the wolf and other of the carnivora feed upon the lamb and the kid—thus they derive their food indirectly from the soil.

* * *

The deeper the soil is made, the deeper the roots can go in search of food.

LIGHTNING-RODS OR CONDUCTORS.

BY L. WETHERELL.

There are few persons upon whom a thunder shower, when passing directly over them, does not make an impression; and some there are who suffer most intensely from fear. This fear is not without cause; for many persons, every warm season over our country, are killed by lightning. Volney reports that there were in the United States, in 1797, from the month of June to the 28th of August, 24 persons struck by lightning, of whom 17 were killed. In France, in 1819, 20 persons were killed by the same cause. That there is danger then, none can deny. And the instinctive dread which man has of death, is a sufficient cause for the fear and suffering which are excited in many persons, by a thunder shower.

From the fact that many lives and much property are destroyed annually by the agency of electricity, or lightning, for these are but different names for the same powerful agent, the inquiry arises in every thinking mind, is there any way to avert this danger? because, if there be, common prudence and forethought would seem to dictate its immediate application for the preservation and security of both life and property. From the discovery of the facts by experimenters with electricity, that certain substances repel, ward off, or are non-conductors of the electric fluid, while others attract it, and are called good conductors, Dr. Franklin was led to invent the lightning rod, or conductor.

This rod or conductor is usually made of wrought iron, though copper is better, because less liable to rust or melt, and is, also, a better conductor. The rod should be three-fourths of an inch, or an inch in diameter; its extremity extending above the building into the air should be finely pointed, and gilded with some metal that does not rust; and no interruption must occur from the point to the lower extremity extending into the earth. M. Gay-Lussac, under the auspices of the French Academy of Sciences, has presented the following instructions:—"The rod of the lightning-conductor is about 27 feet in length: it is composed of three pieces, namely, an iron rod 25½ feet in length, a brass rod of 18 inches, and a platinum needle 2 inches long: taken together they form a figure resembling a cone.—(The length must be greater or less according to the height of the building.) The platinum needle or point is soldered to the brass rod with silver, and the place of junction surrounded by a covering of copper. The brass rod is screwed into the iron rod, and secured by transverse pins. The iron rod is often composed of two pieces in order to facilitate its transportation; one of these fastens into the other by means of a long conical projection, 7 inches in length, which is secured by a transverse pin."

Much depends upon a good connection of the rod with the earth, after it has been properly fastened or attached to the building. It should terminate in a well, or moist earth, where the rod should be divided into several branches. The part of the rod in the earth should be covered with charcoal, which is also a good conductor. It is best to connect with water when it can be done.

Experience teaches that a lightning-rod such as has been here described, protects around it to a distance equal to twice its height; or for example: when the rod is 5 feet above the roof it protects a circle whose diameter is 20 feet, or ten feet in all directions: so if the building be large, more than one conductor will be necessary to furnish protection.—The experience and observation of more than 60 years show, that, when the rods or conductors are made and put up in accordance with the directions here furnished, which is not the speculation of some abstract theorist, but truth as discovered by observation and confirmed by experiment, they will furnish ample security and protection for both life and property against the effects and perils of lightning.

Arago, a French philosopher, says, that it is highly probable that a *silent* and gradual discharge of a thunder-cloud is often effected by the points of lightning-rods, and thus an explosion is prevented.—He further states, that "*lightning-rods not only render the strokes of lightning inoffensive, but considerably diminish the chance of the building being struck at all.*" So it seems that the conductor so facilitates the passage of electricity between the cloud and the earth, that a discharge is much less likely to occur over a building thus furnished—but admitting that it does, the conductor renders the stroke "inoffensive."

The farmers of Massachusetts, and especially of Worcester county, called the back-bone of the Bay State, have many of them provided lightning-rods for both their barns and their houses. Many more barns than houses are annually destroyed by lightning.

Lightning-conductors furnish the very best and cheapest insurance against the perils of lightning. How much wiser and better is the policy pursued by the man who provides for the security of both life and property against the effects of lightning, than that of him who provides for the latter only, by shifting the hazard to an insurance company; so that, though he be killed by the stroke of lightning which might have been averted by a conductor which would have cost less than his insurance policy, yet his friends have the consolation of knowing, that his forecast has secured for them a sum sufficient to repair all damages done to the building by the stroke.

Will not farmers and others consider the expediency, where they have not already done it, of providing lightning-conductors immediately for their buildings, and so secure and preserve both life and property from the effects of one of the most fearful, terrific and powerful agents of this nether world?

PLOWING.—SAW-DUST AS A MANURE.

Messrs. Editors:—Under the above head I wish to state a few facts, and make a few suggestions. There is one thing necessary in all grain growing countries to ensure a good crop—that there should be good plowing. The first requisite to gain this end is to have good teams; (and, by the way, it is not so expensive keeping a good team as it is a poor one.) And the second is to have a good plow, and have it well rigged, with wheel, colter, and all. When the plow is taken into the field and tried, the plowman should measure with his eye the width of the furrow, and also the lap the plow will turn, and do it well. Then he should keep it in that position as to width, and hold steady and firm, and he will thereby make a straight furrow, and the land will be even and nice. The furrows should not be less than six inches deep for spring grain, nor less than eight for winter grain. I have heard many farmers make the assertion that it would not do to plow deep always, but that it would do once in a long time. I think they are in an error. For certainly if we plow only four inches we have only four inches of soil for our crops to grow in; while, if we plow eight inches deep, we have eight inches of soil loosened for the crop, and there is no doubt but the crop would be benefitted in proportion to the depth of the plowing.

There is another error I think farmers labor under —that is of throwing up their ground into narrow lands from three to six paces wide. The best way, in my experience, is to keep the land as level as possible; and in order to do this the lands should not be less than twelve or eighteen paces. The ground will thereby be kept level and smooth, and the grain will grow evenly over the whole surface.

But methinks I hear the farmer say, "What shall I do to keep the water off my level land, if I do not throw it up narrow?" I will tell you. Plow your ground into lands of twelve paces, and after the seed is dragged in, clean out the dead furrows—and then draw furrows at right angles with the dead furrows, the same distance apart as the dead furrows are, and you have a square of twelve paces, or about thirty-six feet. And if the main ditch and the corners of the others are well cleaned out with the shovel or hoe, I will insure you against any loss by water standing on your wheat Try it, brother farmers, and I am sure you will like the plan.

Now, Mr. Editor, I wish to make an inquiry as to your opinion whether saw dust strown on to land and plowed in would be of any benefit. We have a saw mill on our place, and considerable saw dust has accumulated around and under it, and I think of drawing a quantity of it and plowing into a summer fallow; but if you think it will not be of any material benefit, I shall not do it. Last winter I drew several loads of it, together with several loads of forest leaves, into the barnyard for the purpose of trying to make manure of them. Since I have taken the Genesee Farmer, I have come to the conclusion that manure is the true philosopher's stone—it turns all to gold it touches. **Farmer of Niagara.**—*Pekin, New York, May,* 1849.

Remarks.—We suppose that saw dust possesses as much value as any other vegetable matter, even the dung of animals after it is leached of its soluble salts. It is the material that forms *humus*, which is the bread and meat of plants. Its action is not immediate, except so far as it renders compact clayey soils porous, and pervious to air and water. After it has gone through a species of carbonizing process, it becomes *humus*, the material that changes the color and darkens all virgin and rich antripical soils. It cannot fail of enriching any kind of soil, particularly if the saw dust is from the hard woods. Pine, hemlock, and the whole fir family would have a deleterious effect, unless long composted, and the resinous quality destroyed by lime or natural decomposition. *

* * *

Wind Mills.—In your May number, page 109, I find an inquiry about Wind Wheels. If your correspondent in Van Buren will take the pains to inquire of Mr. **Truman Kidder**, of Warren, Warren co., Pa., he will obtain all the information he wishes, and find exactly the wheel he wants. **Subscriber.**—*Warren, Pa.,* 1849.

Why not furnish us a brief description, price, &c., for publication in the Farmer?—**Ed.**

NOTES FROM A WISCONSIN FARMER.

Messrs. Editors:—After wishing you the success a valuable work merits, I will jot down a few rambling thoughts.

I would merely hint to Dr. **Hoyt** that I think him ahead of the times about the potato rot. Were his statements correct a preventive is at hand, as it might undoubtedly be effected by dressing the soil or vines with lime or ashes; for I have found the application of them sufficient to expel every kind of worm from the soil and crop. A half acre near the house, I supplied so liberally that an insect is rarely seen on it; and as evidence of this, neither hen or bird attempt to find them, even when newly plowed. Yet, even in this ground, the potatoes rot; and though the worm described is found in the corn fields and elsewhere, I have not been able to detect it or any other insect in the potato vines—although I have examined them for three years past, commencing as soon as I could see they were affected, and looking often until cold weather, splitting the vines, &c. They rotted three times as much on ground plowed ten or twelve inches, as where plowed not more than six.

Speaking of plowing leads me to another topic.—I do not know but our western land may ultimately need deep tilling; at present it appears not beneficial. I know not whether we have any land that, with the best management, would produce such a crop of corn as stated by Mr. **Sheldon**. I have fifty acres that will produce from seventy to ninety bushels per acre, by plowing from six to eight inches deep, and hoeing, (without manuring or harrowing,) which I would like to let some of the Genesee farmers have, that they might cultivate it thoroughly and see if it would not produce as much as heart could wish, of corn, wheat or root crops. The latter, with half cultivation, are produced in astonishing quantities.

I have a little native cow that has been kept out at the stack all winter, which will give as much milk and of as good quality as any Durham of her weight; but the art of obtaining as much butter or cheese therefrom, as we read in the Farmer that some have done, I am confident we do not possess.

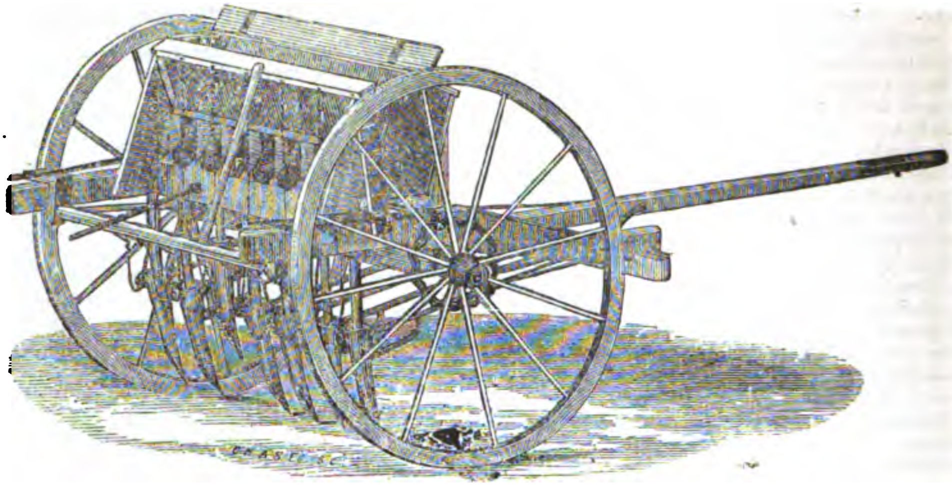
I am told that one man, a few miles from here, has commenced building wire fence, and finds it very expensive. We cannot go into it here so long as the merchants make us pay twenty-five cents per lb. for wire—and its utility and durability are doubted.

Our friend's views on "keeping the swinish multitude at home" are to the point. I intend to show the article to a well off Pennsylvania farmer, who keeps a large herd of swine and pastures them wholly in the road, in hopes that he will take the hint. That *Van* may be a decent man, aside from his politics.

The Horticultural Department of the Farmer we all much need in this section. It contains the most information on the subject of any journal that I have been privileged with reading.

Though perhaps more applicable to the farmers of New York and New England, (who farm it on a smaller scale than us westerners,) I feel disposed to continue the Farmer for the satisfaction of reading it; and learning what improvements are being made; also learning the views of many different and distant persons on various, and some very important subjects.

You perceive that I cannot write like some of your friends; but what I have written is in whole, part or none, at your service, as our Van Buren friend says. **Smith.**—*Spring Prairie, Wis., May,* 1849.



SEYMOUR'S DRILL AND BROADCAST SOWING MACHINE.

Messrs. Editors:—There is so much of the Baron Munchausen style in the advertisements of Drills in the Genesee Farmer, that your readers may think the effort is to out brag each other. I have no interest in bragging of **Seymour's** Machine. I have owned and used his broad cast sowing machine for the last eight years, and have noticed the improvements he has made in it. I have sown with it different kinds of grain, plaster, plaster and salt mixed, ashes, clover and herds grass seeds, flax, &c. At first it was an imperfect machine, but with the late improvements it works satisfactory in all respects.

The drill he has but recently attached, and I have had but little opportunity of seeing it work. I have been in several fields of wheat drilled in last fall, and have carefully examined the work. There is no intermissions or failure in the drills, but the wheat has come up uniformly in all of them. I have examined fields put in with **Palmer's** drill last fall, and the year before, and have found some of the drills missing for rods together, and then a great deal too much wheat would be dropped. From the manner in which the wheat is agitated in **Seymour's** drill, I think a failure of dropping seed will rarely occur. I have no doubt but it will sow wheat which has been soaked and rolled in lime, or plaster, and barley and oats, although I have not seen it done. I have drilled in corn and beans, and my neighbors have drilled in beets and carrots, satisfactorily.

From what I have known of this drill and sowing machine, I have no hesitation in saying that I think it a valuable machine; and it can be altered from a drill to a broad cast machine in a few minutes.—However popular drilling may become, some of the smaller grains, clover and grass seeds, plaster, ashes and lime, will always be sown broadcast

It is not always the horse upon which bets are the most freely offered, that wins in the race—so, don't start until **Seymour's** Machine is in the field. After a fair race, let impartial judges decide. At all events let the farmer be benefitted, whoever wins or loses.—**Myron Adams.** *East Bloomfield, N. Y.*, 1849.

Remarks.—The testimony of our valued correspondent is reliable, inasmuch as it is founded upon experience, as well as observation. We were favored with an opportunity of examining Mr. **Seymour's** drill, a few days since. It is well built, and possesses some improvements and advantages over many of the other drills now in use. Whether it will prove "A, No. 1," among the drilling machines recently offered to the public, is a question which remains to be determined. At any rate we think it worthy of a trial by grain growing farmers—for, whether best or second best, it will be found a valuable labor-saving (and seed-saving) article.

We will add, for the information of those who may desire to obtain this Drill, that it may be had on application to Seymour & Morgan, of Brockport; C. Seymour, of York; Anthony, Rountree & Everson, of Union Springs; or P. Seymour, of East Bloomfield, N. Y. See advertisement in May number.

CATTLE IN CHAUTAUQUE COUNTY.

Mr. T. B. Campbell, of Westfield, N. Y., communicates the following to the *Cultivator*:—

The County of Chautauque, is perhaps, one of the best agricultural sections of the State of New York, and particularly adapted to the breeding and rearing of stock. Hence it has been an object among our farmers for a number of years past, to improve the breed of cattle, sheep and horses. The short horns, and that breed crossed with the common stock, have, until recently, been considered the most valuable, and yielding the greater profit. A few years since the Herford breed was introduced here, at first they did not meet with general favor; it was feared that they were too small, and that they would reduce the weight of our cattle. Experience has proved such conclusions entirely wrong. The cross with the Hereford and our cows, they being generally of the short horned descent, proves to be one of the greatest improvements in the breed of the Chautauque cattle that has yet been introduced, and will add much to the interest of the breeder and farmer. I cannot speak with as much cretainty from my own experience, in regard to their quality for the diary, but those who have proved them, recommend the richness of their milk in the highest manner, and rank them in the first class for the dairy.

COST OF FENCES IN THE UNITED STATES.

BY J. S. SKINNER.

The cost of building and repairing the Fences in the United States, is enormous, almost beyond the power of calculation, and forces the enquiry, whether Legislatures ought not to be called upon to compel every man to keep his stock to himself. Then no man, who did not choose to do it, would be forced to enclose his land against the ravages of his neighbor's stock.

Mr. Biddle, a few years since, in an address before the Philadelphia Agricultural Society, stated that the cost of the fences in Pennsylvania amounted to $100,000,000, and their annual expense he estimated at $10,000,000. A distinguished writer on National Wealth, says: "Strange as it may seem, the greatest investment in this country, the most costly production of human industry, is the common fences which enclose and divide the fields. No man dreams that when compared to the outlay of these unpretending monuments of human art, our cities and our towns, with all their wealth, are left far behind. In many places the fences have cost more than the fences and farms are worth. It is this enormous burden which keeps down the agricultural interest of this country, causing an untold expenditure, besides the loss of the land the fences occupy."

Estimating a chestnut post and rail fence to last 18 years, and including inside fencing and repairs, the *annual* tax to the farmer holding 150 acres, will be $130 to $140, and judging from the present appearances, the tax is perpetual, and there seems but little hope of escape from it.

Did the intelligent farmer reflect a moment, and estimate the annual tax which his fences impose upon him, he would not rest till the system was abolished, or else the live hedge took the place of the present expensive fence of timber.

The system of compelling every landholder to enclose his property, is peculiar to the United States, with only the exception of England, where the fence nuisance appears again under the form of the hedge; and although these hawthorn hedges, when they are well tended—and not more than half of them are so—are beautiful objects, and answer all the purposes of protection against the inroads of cattle, still the public voice is beginning to cry out against them, because of the enormous amount of land required to support them. Each hedge is five or six feet wide at its base, and taking into account the amount of land they exhaust on either side, the whole space cannot be less than twelve or fourteen feet wide. When it is recollected that the divisions and sub-divisions of land in England are very numerous, the amount of arable land abstracted from the purposes of agriculture, is very great. It has been estimated at several million bushels of grain.—*Plough, Loom and Anvil.*

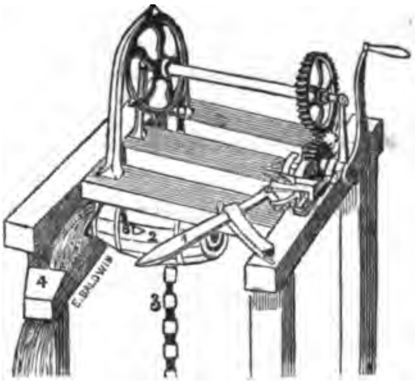
* * *

Wheat at the South.—This important crop has been more than half destroyed by frost, rust and insects. "Canal Flour" is coming here by the cargo. At present it is impossible to form a reasonable conjecture how much will be needed before the next harvest. Corn has been as high as 85 cents in this city, (Augusta, Ga.) It is now (6th June,) 65 cents.—Flour $7 a barrel. One thousand bundles of Northern hay landed within the last month, and is selling at $1 25 per 100 lbs. Corn promises well. Cotton less than an average crop by 20 per cent.

A NEW WATER DRAWER.

A. Green & Co.'s Self-acting, double Well Buckets.—This invention performs double the work with the same labor, that the common windlass bucket does. It is so simple in its operations that a child can as easily and safely draw water as an older person. It brings up the water from the shallowest wells without riling, and delivers it with the same certainty in the dark as in the light. From itse expedition it becomes very valuable, when large quantities of water are required for cattle, or in cases of fire.

It is a well settled fact, that all wells that are impregnated with any of the sulphurous gasses, do not give good water with the pump, owing to its taking the lower stratum of the water, which has not been exposed to the atmosphere, and lost its gasses—and from the accumulation of a mephitic atmosphere filling the closed well with its noxious properties, and surcharging the water; while the bucket, from its motion, constantly renews the air and takes the water from the surface, which has given up its gasses from their levity.



One of these machines can be seen in operation, on the farm of L. B. Langworthy, Esq., Ridge Road, three miles from Rochester—and in a few days, one will be on exhibition in this city. Messrs. A. Green & Co., of Port Byron, N. Y., are the manufacturers.

* * *

Use of Inferior Farm Implements.—We lately saw an old fashioned plow at one of our largest plow manufactories. On inquiry, we found that it was a pattern on which the proprietors commenced their business, some 15 or 20 years ago; and although a very good plow, for that period, it is superseded among all intelligent farmers, by other and more recently constructed patterns, which will do the same work, and with at least a quarter less labor.

We found that the single reason of its now being employed, in preference to others, with most of those using it is, that it has a point, or share of cast iron, costing some 15 cents each, which admits of being worn out at both ends, instead of one end only, as those now constructed. The saving of 7½ cents, in this share, determines its use; and this is saved at an additional expenditure of team power, costing not less than 25 to 50 cents per day, which, by the time the share is worn out, would amount to from $5 to $50, according to the soil. Such wiseacres are never guilty of taking nor reading agricultural papers, to teach them a better system of economy.—*American Agriculturist.*

MANUFACTURE OF CHEESE.

BY A. L. FISH.

[Continued from page 142.]

In raising the heat to scald the curd, it is not proper at all times to raise it to a given point with the same rapidity, because, sometimes when the curd appears ready to scald, a rapid increase of heat will soften instead of hardening it, owing to the rennet not having time to perform its office properly. At other times it may be necessary to raise heat speedily, in scalding, to keep pace with the effect of rennet, which is accelerated by the milk being nearly sour. The slower rennet acts upon curd the longer time is required to raise and hold a scalding heat, never exceeding one hundred degrees, Fahrenheit, except to suppress a speedy action of rennet with sour milk; then, an excess above blood heat will retard its operation and keep pace with its effect. The cheese-maker should bear in mind, that heat and rennet are the principal agents used, and success depends much upon their action being properly combined throughout.

"Are any other than calves' rennets used, and what is the best method of preserving and preparing them for use?"

Swines' rennets were formerly used, mixed with those of calves, to make a cheese soft and tender, and those of sheep and beeves were used to harden curd and keep cheese in a pressed shape; but I know of no dairyman that now uses them.

Whatever plan is adopted to preserve rennets for future use, care should be taken that the decomposing properties of the stomach do not continue to act, and the strength evaporate. When salted and dried the rennets should be kept in a dry atmosphere, or the salt in them will attract moisture, and soon destroy their best properties. It is argued by many experienced dairymen, that the stomach, with all its contents pickled together in salt, will make more cheese, and of as good flavor, as when dried without the curd. But I would ask, if meat were salted with all the blood and animal fluids in it, would it be as good flavored at the end of a year, as if well dressed and salted? And would not a quantity of food, half digested, salted with the stomach, materially effect its flavor, if kept a long time? Beef and pork are sold in market, after being in salt one or more years, at a reduced price, as "old meat," having lost its best flavor.

The flavor of cheese depends much upon the flavor of the rennet used. Therefore, I think splitting the rennet, and stretching it with sticks, so that it will be of a single thickness, and will dry quickly, is the best and surest way to preserve a good flavor.

To prepare Rennets for use.—Take as many gallons of water as rennets in number; put them in the water, blood warm; soak them twenty-four hours; stir them frequently in the time; strain the liquor and let it settle; make it as salt as possible; if any skum rises it should be skimmed off. While this liquor lasts a uniform strength may be relied upon. It should be stirred to the bottom before being used.

"Is milk more apt to sour from the effect of electricity, in tin vessels, than in wood?"

The ease with which tin vessels are kept clean, makes them preferable to wood. An opinion conceived by many, that tin vessels have a tendency to sour milk, at a season when thunder showers are frequent, is not an objection to their general use. There are other causes for milk's becoming sour, to be taken into account first. Excitement of cows from any cause will affect their milk, and they are more excitable in changeable weather, than when the weather is steady, cool or warm. In hot, damp weather, more cows will be in heat, and give bad milk, which if mixed with other milk at evening, will be a more direct cause for sour curd than any effect of electricity upon milk, after it is taken from the cow; and in such weather, milk vessels are not thoroughly dried, after being used, in which state they often get foul. An old barrel, put up in form of a leach, near the dairy room, and ashes thrown into it occasionally, and leached, and the lye used freely about cheese-cloths, press, &c., will remove one cause for sour curd. I use no wood vessels in my dairy.

"Is there danger of pressing a cheese too hard?"

Not any. If it has been over heated in the milk or curd, it may be pressed so dry that it will be a *lifeless* (tasteless) cheese, and so it would be if it were pressed lightly.

"Should the animal heat be allowed to pass off from the morning's milk?"

The most perfect affinity should be maintained among the constituent parts of milk that is curded or worked together, throughout, that it may not waste in working; and plague in curing. It is, therefore, necessary that all should be cooled and warmed alike. A. L. Fish.—*Litchfield, Herkimer co., N. Y.*, 1849.

BENEFIT OF AGRICULTURAL PAPERS.

Friend Moore:—I send you pay for thirty copies of the Genesee Farmer. It is all I can find, in this place, that wish to subscribe for an agricultural paper; many more, I am satisfied would, were they not ignorant of its value. There is certainly a vast difference in the cultivation of two farms, and fixtures about them, where the one is done by a man who regularly reads an agricultural journal, and the other by one who reads nothing on the subject. It is a matter of surprise to me that there are so many in this county that read nothing on this subject. There are farmers of my acquaintance who refuse to subscribe for your journal for the reason that their crop of wheat failed the past year.

I know two men owning farms joining each other in the town of ———. One of them has been a constant subscriber to the Genesee Farmer for several years past. His fences, barns, stables and farming implements are as they should be; his stock well provided for; his farm produces bountifully. The other knows enough about farming without reading; or, in other words, does not wish to be a *book farmer;* and his farm shows it to any who may pass that way, for it is enclosed with the poorest fence in the town; his farming implements (what few he has) are in proportion. He has no shelter for his cattle but the broadside of his barn, or a small stack of straw; he has no grainery in either of his barns, and was necessitated this winter to loan the use of one from his better managing neighbor, to store a small crop of wheat which he did not get threshed in time for fall market. The former works upon good sound theory, and it gives him pleasure and profit—the latter, of necessity, and if he happens to have a good crop, (though he seldom does) he is a lucky man. And, friend Moore, it is universally the case, as far as my acquaintance extends, that those farmers who read the most are the closest and most accurate observers, and universally get the best pay for their labor and capital invested. A Friend of Improvement.—*Seneca Co., N. Y.*, 1849.

Spirit of the Agricultural Press.

A New Manure.—Robert Bryson, Esq., of Cumberland county, about eight miles from Harrisburgh, has been experimenting for the last ten years, to make exhausted tan-bark available and valuable as a manure. Besides his magnificent farm, he likewise carries on the tanning business. Finally, after a great deal of expense and many failures, he has succeeded in discovering a method of producing from the tan, an efficient manure. This is his plan: He has his tan wheeled out on to a level piece of ground, and leveled off, two or three feet thick. Over this he spreads a layer of two or three inches of lime, and over that again a stratum of tan, then a layer of lime, and so on. He lets the beds prepared remain for two years: at the end of this time he finds himself in possession of a bed of manure, the effects of which upon the land, can hardly be surpassed for the richness of its product and the durable fertility which it imparts. —*Lancaster Co., Pa., Farmer.*

Proper Selection of Stock.—At a late agricultural discussion in Derbyshire, Mr. G. Greaves remarked that the choice of a breed of stock was as important as the management. It seemed to him that enough attention was seldom paid to the particular kind of produce it was intended to obtain from stock. The same breed did not answer for feeding and for the dairy too; for the early maturity of stock and the propensity to fatten, were most observable when the generative functions were not so perfect, whereas the good milker was almost always a good breeder. For early feeding stock, it would always be advantageous to mix good nursing dames with sires that had a great tendency to fatten. He agreed in the opinion that feeding stock should be kept well when young; but calves intended for the dairy, and ewe lambs for the breeding flock, should not be made fat.—*Cultivator.*

A Freak of Nature.—A communication in the Boston Courier from the late editor of that paper, Mr. Buckingham, states that Mr. William Carter, of Cambridge, has a healthy and well-formed calf, having a coat of *wool* instead of hair! There is no perceptible difference in the appearance of the animal's hide, from that of a sheep of the same age. Like the sheep, the face and lower part of the legs are covered with short and not very pliant hair; the rest of the body has a covering of wool, which, to all appearance, may afford as liberal a fleece as a true Saxon or Merino.

Camelina Sativa.—Some of the Georgia planters, for want of sufficient encouragement in the cultivation of the cotton-plant, are beginning to give attention to the culture of Camelina Sativa, (or gold of pleasure,) an unctious seed resembling flax-seed, from which oil is expressed in the same manner as from flax-seed. The plant is a native of Siberia, but well adapted to our southern climate. It is an annual growing from two and a half to three feet high, and yields a large and certain crop. It is already in demand in this country.

Worth Trying For.—The London Athenæum says that the Belgian Government has instituted two prizes of five thousand francs, with a gold medal and one thousand francs respectively; the first for the best work on general agriculture, the second for the best treatise on the disease of the potatoes. Foreigners are invited to compete, and manuscripts are to be sent to the Ministry of the Interior before the 1st of January in next year.

Extensive Coal Field.—The great central coal field of the Mississippi valley covers an area of 70,000 square miles, or 44,800,000 square acres—six times the area of all the coal fields of Great Britain; and yet, this vast supply is seldom taken into the account, when estimates are made of the coal resources of the United States.

Singular Mode of Keeping Fish alive.—Those worthy individuals who take delight in Izaak Walton's art, and who, moreover, are in the habit of sending the result of their sports to their epicurean acquaintances, must learn an indispensable piece of information, viz.: how to keep fish fresh. This may be done by soaking the soft part of bread in brandy, and inserting it into the gill of the fish, while it is yet alive, and afterwards sprinkling it over gently with brandy. Thus prepared, and carefully packed in straw, the fish will keep alive ten or twele days, as may be proved by putting it in fresh water at the end of that time, when, after a few hours' immersion, it will recover from its protracted drunkenness.—*London Literary Gazette.*

Rules for Raising Poultry.—1. All young chickens, ducks and turkeys, should be kept under cover, out of the weather, during rainy seasons.

2. Twice or thrice a week, pepper, shallots, shives or garlic, should be mixed up with ther food.

3. A small lump of assafœtida should be placed in the pan in which their water is given them to drink.

4. Whenever they manifest disease, by the drooping of the wings or any other outward sign of ill health, a little assafœtida, broken into small lumps, should be mixed with their food.

5. Chickens which are kept from the dunghills while young, seldom have the gapes; therefore it should be the object of those who have the charge of them, so to confine the hens as to preclude their young from the range of barn or stable yards.

6. Should any of the chickens have the gapes, mix up small portions of assafœtida, rhubarb and pepper, in fresh butter, and give each chicken as much of the mixture as will lie upon one-half the bowl of a small teaspoon.

7. For the *pip*, the following treatment is judicious: Take off the indurated covering on the point of the tongue, and give twice a day for two or three days, a piece of garlic the size of a pea. If garlic can not be obtained, onion, shallot, or shives will answer, and if neither of these be convenient, two grains of black pepper, to be given in fresh butter, will answer.

8. For the *snuffles*, the same remedies as for the gapes will be found highly curative; but, in addition to them, it will be necessary to melt a little assafœtida in fresh butter, and rub the chicken about the nostrils, taking care to clean them out.

9. Grown-up ducks are sometimes taken off rapidly by convulsions. In such cases, four drops of rhubarb, and four grains of cayenne pepper, mixed in fresh butter, should be administered. Last year we lost several by this disease, and this year the same symptoms manifested themselves among them; but we arrested the malady without loosing a single duck, by a dose of the above medicine to such as were ill. One of the ducks was at the time paralyzed, but was thus saved.

Vinegar.—Many families purchase their vinegar at a very considerable annual expense: some "make do" with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter however, to be at all times supplied with good vinegar, and that too without much expense. The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider-or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways, which a little ingenuity can suggest, and put the liquor into an empty barrel; cover the bung with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use.—*Farmer's Advocate.*

Chess—Transmutation.—Reading the article with the above caption in your paper this morning, taken from the Genesee Farmer, I send you the following for insertion in the Advertiser, or for the flames, as you think proper:

In reply to H. W., of China, N. Y., I know from my own experience, and from the experience of others, that mowing or feeding off wheat in the spring will not always change it to chess, nor do I believe it ever will. I believe the wheat was mown or fed, as stated, but do *not* believe the wheat was turned to chess. I think Simeon J. Barrett mistook a small grain of shrunk wheat for chess. If you publish this, I may send you another communication on the subject.—*Detroit Advertiser.*

Agricultural Fair in Michigan.—The State of Michigan, following the example of New York, has organized a State Agricultural Society, and the first Fair is to be held in Detroit on the 26th and 27th of September next, provided a sufficient sum of money shall be raised there to defray the local expenses. It can hardly be doubted that the amount, not exceeding $500, will be promptly subscribed. We congratulate our Michigan friends on this enterprise, and anticipate from it, if energetically and judiciously prosecuted, the most beneficial results. No State in the Union is more favorably situated for profitable agriculture than Michigan.—Her soil is fertile, her climate is mild and salubrious, and almost surrounded as she is by water, she has, in connection with her extended system of internal improvements, and navigable streams, unsurpassed facilities for sending her surplus products to market.—*Buffalo Com. Adv.*

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

HARDY FLOWERING TREES AND SHRUBS.

This is the season of the Flowers' Triumph. No matter how indifferent man may profess to be to their influence; he may wish to banish them from the world as *useless*, and substitute in thoir place what he calls *useful*. He may boast his want of taste and refinement—his insensibility to the charms of grace and beauty—he may proclaim his own ignorance, and glory in his own shame;—yet that man remains to be found whose feelings are not touched, and his heart captivated by the lily and the rose, and their companions in beauty. He has not traveled far on his journey through life, who has not stopped to do homage to the flowers.

This is not only the season of the Flowers' Triumph, but it is the season that awards the diligent cultivator a hundred fold for all his toils. Many who had resolved on better things, have now bitterly to lament that the spring is gone, the season of flowers come, and their grounds present the same unsightly appearance as in former years, while those of their neighbors literally *"bud and blossom as the rose."*

The following are a few select Trees and Shrubs that have bloomed during the month of June:

The *White flowering Horse Chestnut*, is a noble tree, considered in all respects—*form, foilage* and *flowers*—entirely free from disease of any sort, and flourishing in all soils and situations. It is becoming more and more a favorite for street, park and dooryard planting. It is fast taking the place of the *Button-wood*, which is rapidly dying off from some disease that has been preying on it for a few years past. Nothing surpasses the beauty of a fine Horse chestnut in bloom. The dense and luxuriant mass of foilage form a rich back ground for the flowers which rise up in spikes a foot or so in length. There are red and yellow flowering species, and several rare varieties, but whilst all are desirable for large collections, none of them equal the common or white flowering for general planting. Propagated from seeds planted either fall or spring; the rare ones are budded or grafted on the common.

The *Mountain Ash* is another beautiful tree of a habit similar to the preceding—that is, with a round or regular shaped head. The foliage is small but dense. The flowers appear in umbels, like those of the carrot or parsnip, and are succeeded by clusters of reddish yellow berries, that coustitute the peculiar beauty of this tree, in the Autumn. There are two species commonly cultivated, the one European and the other American. The European has the most compact and regular habit; small, but greater density of foilage, and smaller and deeper colored fruit. The American is more spreading or irregular in habit—large foilage and fruit. Each has a beauty of its own, suited to different tastes and positions in a different landscape. We like them both. They grow rapidly enough to suit any one of moderate patience. The berries are gathered in the Autumn, the pulp washed off, and the seeds buried in a dry soil or sand for a year before planting. Most of the seeds of the American species will grow the first year, if scalded. It is usually said of this tree, and truly, that "it needs no pruning and is never out of shape."

The *Flowering Ash*, (Ornus europasus.)—This tree, although long cultivated, is by no means common—yet it well deserves a place among select trees. It grows vigorously and with moderate rapidity. It forms a round dense head—foilage, deep green and glossy—and the flowers, which are of greenish white, are produced in large clusters about the middle of June. It is usually grafted on the common species of Ash.

The *Laburnum*, or Golden Chain, is one of the most elegant trees. It has a spreading, irregular habit, rich deep green foilage, and pendulous racemes six to twelve inches long, of golden yellow blossoms. There are two species, the *common* and the *Scotch*, that resemble each other; the latter flowers a week or so later. There is also a purple variety, with pendulos flower spikes like the others, but of a reddish purple eolor, with a yellow tinge. These three make trees twenty to thirty feet high. Of the same genus (cytussus,) there are many dwarf and pendulous growing species, with white, yellow and purple flowers, that make very pretty border shrubs, and when grafted on the common sorts, four to six feet high, make charming little trees for a lawn. Of these we have now before us the *purpureus*, with slender branches and delicate, pretty blossoms; *triflorus*, three flowered—yellow flowers in great profusion; *falcatus*, or sickle podded, also yellow. The common sort, first named, is propagated from seeds, as the locust; the others are increased by grafting, budding or layering. While speaking of these we may mention another fine plant akin to them, the common or Scotch Broom—a shrub that grows six or eight feet high, small leaves, and bright golden yellow flowers, now, (June 16,) in full bloom. Raised from seeds, also, or layers, as may be convenient.

Flowering Thorns.—These rank among the finest spring or June flowering trees and shrubs. The *Double White* has its flowers in large clusters of charming little double, pure white blossoms, changing to pink as they decay. The *Double Scarlet*, is quite rare, only different in color from the preceding. Then there is the single pink, and single scarlet; the centre of the flowers of both is white, and adds much to their beauty. They have the delicious fragrance of the English Harwthorn. We hold all these to be indispensable in a nice collection of flowering trees and shrubs. They are increased, like fruit trees, by grafting or budding on the common thorns. We see no difficulty in the way of making hedges of these beautiful thorns. Thoy can be propagated by budding rapidly, and at one year from the bud will be fit for hedge rows; and, if mixed with *Privet*, to fill up spaces, we think that, for the enclosure of lawns, &c., where beauty would be desirable, these would be just the thing. We can imagine nothing more beautiful than a hedge of these Double White and Scarlet thorns, in full blossom, enclosing a bright green lawn.

The White Fringe, (Chionanthus virginica,) now (June 18) in full bloom—a distinct and beautiful shrub or small tree, ten or fifteen feet high, with very large, glossy foliage, and pure white, delicate flowers, resembling cut paper. It is increased from seeds, but they will lie a year in the ground before they grow. It may be grafted on the common ash. It loves a moist soil. In its own class of trees it has no rival.

The *Spiræas* are a fine class of shrubs, ranging from about two or three to twelve feet in height, and bearing immense numbers of beautiful clusters of white flowers. The *Spiræa lanceolata* is the most charming of all. Its clusters of blossoms of the purest white, contrasting with its bright green leaves, presents a picture enough to enrapture the lover of earth's beauties, and stir a chord of feeling in the most senseless heart.

The *Rose Acacia* is a beautiful shrub, deserving a place in every collection. The *Lilacs* are well known, and the common purple and white generally cultivated. The *Persian Purple, White Persian,* and *Mimosa leaved* are fine and rare sorts.

HINTS FOR JULY.

See that your Dahlias are carefully tied up to stakes, and all superfluous shoots taken off. Water plentifully in case of drouth, and have an eye to the attacks of insects—and in a little while they will pay you liberally for the attention.

Plants that are headed out, in masses—such as *Verbenas, Roses, Petunias, Phloxes,* &c., require attention. The great object to be aimed at is to have the ground entirely covered by a mass of foliage and flowers. To secure this, the shoots must be laid down, and where necessary, staked to the ground.

Tie up neatly all Herbaceous Plants. Cut off withered flower-stems, and keep your beds free from weeds.

Fruit.—As soon as the fruit is gathered, strawberry beds should be thoroughly free of weeds, and of the runners, if the beds are young; but if old, plant out good strong runners for a new bed, and spade down the old ones. Choose damp, cloudy weather for this; and if you can find such weather, no matter how soon you "fix" your strawberry bed.

Pear trees for Pyramids, should have their side-shoots pinched to keep them in shape. It is much better than a heavy pruning in spring or winter, which induces such vigorous growth as usually retards bearing. *Dwarf* and *Pyramidal Cherries,* and indeed all Garden or dwarf trees, are much better for this summer pinching, as it in a great measure obviates the necessity of a pruning the following spring, and hastens bearing.

In raising *standard trees,* the side branches should never be wholly removed until the stem has acquired strength and proportion. When they are removed, the tree becomes *top-heavy,* and unable to support itself. Pinching occasionally these side branches keeps them in balance and assists the tree in acquiring strength where it is needed.

Effects of the Cold and Wet Weather on the Peach.—In the month of June every year the young leaves of the peach tree, are more or less affected by changes of temperature, as we suppose. Some hold the opinion, that it is caused by insects, but we think without good reason. This season it has been much more injurious to the trees in this vicinity than we have ever known it to be before. The leaves have been wholly affected, becoming swollen, thick, heavy and crumpled, and will all drop. The trees have suffered greatly from it, particularly large trees of bearing size. In many cases the sap has become diseased and is producing what is known as the "gum," to which all the stone fruit trees are liable.

We can think of no other cause for this malady than our cold and exceedingly wet weather in May and June. Our trees in this region, passed through the severe winter unscathed. They blossomed well, set their fruit abundantly, and had commenced growing vigorously. We apprehend, however, that a great portion of the crop will be lost through this malady. Trees that have suffered in this way will require particular attention, or in many cases they may be lost entirely. As soon as the disease terminates, (which will be when the weather becomes steadily warm,) and the tree begins to grow again, the parts most affected, and all feeble or diseased branches, or parts of branches, should be removed, so as to encourage the production of vigorous, healthy wood for next year's bearing.

It may be added, that as far as we have observed, young nursery trees do not seem to suffer more than to be slightly retarded in their growth. The shoots made by the buds inserted last season are generally not affected at all.

THE NEMOPHILA.

The *Nemophila insignis* is one of the prettiest of all dwarf annuals for the border, or for masses on a lawn. Its foliage is delicate and fine, and its flowers of a beautiful blue. It blooms in great profusion, and a long time. We extract the following notice from the Horticultural Magazine (English.) There is another new and rare one, *maculata,* of a fine dark violet, with a white spot in the margin of the petal, worthy a place among the select annuals:

> This is a showy annual of a dwarf growth, which soon displays abundance of small blue flowers, a little cupped, having a pure white eye, and deeply cut leaves. Its seeds may be sown at different seasons, a few in April, and a few at the end of September; for if the winter be not very sharp, they will bloom very early in spring, and those sown in the spring will come into flower by the time the autumn-sown ones decline. The young plants will bear removal, but I prefer sowing them where they are to bloom; there is, however, no harm in planting out the few that you take up from a patch when they have been sown too thickly; and some gardeners make them regularly potted plants, and therefore sow all in one place, and pot off or plant out at pleasure. They are very beautiful till they begin to straggle along the ground, when, although they still keep flowering a little, I should advise you to pull them up to make room for something better.

Apples.—(A. T., Mich.) The Mother and Melon apples are first rate; the latter, particularly, we know to be, as you say, "A, No. 1." We never thought so much of it as we do now. We have had it in fine eating on the *first of May.* To our taste, it is far superior to the "Wagoner," which is a good apple.

EFFECTS OF THE PAST WINTER ON TREES.

From many portions of the Western States we have information that the severity of last winter has been exceedingly distructive to trees. A friend in Illinois, says :—"*All* of our orchard peaches, and *most* of our choice cherries, (and we had 'a good few' of them, as our Yorkshire neighbor says,) are dead—defunct, *winter-killed* ; not blighted a la——, but killed by cold. And many, too many, of our pears are in the same fix, and *eke some.* Our two or three years old nursery peaches mostly dead, and one year old two-thirds dead, and last years buds half dead. Most of the *native seedlings still alive,* and on the lower limbs (which were buried in snow,) there were abundance of flowers, and will be some fruit. Mr. ——, of Wisconsin, writes me that nearly all of his pears and plums in the nursery are dead, and also many apples."

The nursery business here has quite enough of toil and trouble for us, but in a climate like that of portions of the west, how must it be? What a thorough cure such experience as the above would be for some persons who seem to be laboring under a delusive idea that the nursery business is one of the most lucrative and delightful in the world. Before they get into it they dream of Fruits and Flowers, pleasure and riches ; after they get fairly embarked in the matter, they sometimes dream of *excessive cold, heat, frost, snow, hail-storms, blight, insects, rain, drought,* and a thousand other things that annoy the poor cultivator.

In Western New York we had a remarkably severe winter, but vegetation seemed to suffer very little. We have not seen a single tree, old or young, winter killed. Pawlonias, Ailantus, Catalpas and other tender trees are quite uninjured. Young Deodar Cedars, Auracarias, and other evergreens planted out last summer, and not protected at all during the hardest part of the winter, are perfectly safe. Roses generally, had more of their tops winter killed than usual, but this has done them very little harm.

Fruit trees are very promising, as we stated in the June number. Apricots, Nectarins, Peaches, Plums, Apples, and indeed all the fruits, are bearing at this moment, an abundant crop. The young trees in the nursery never looked better. The buds of peaches, pears, plums, and indeed all the fruits look unusually well. This is a great contrast with the state of things in Illinois, Wisconsin, &c., which our friends communicate.

Culture of Orchards.—It is an indispensable requisite, in all young orchards, to keep the ground mellow and loose by cultivation ; at least for the first few years, until the trees are well established. Indeed, of two adjoining orchards, one planted and kept in grass, and the other plowed for the first five years, there will be an incredible difference in favor of the latter. Not only will these trees show rich dark luxuriant foliage, and clean smooth stems, while those neglected will have a starved and sickly look, but the size of the trees in the cultivated orchard will be treble that of the others at the end of this time, and a tree in one will be ready to bear an abundant crop, before the other has commenced yielding a peck of good fruit. Fallow crops are the best for orchards, —potatoes, vines, buckwheat, roots, Indian corn, and the like. An occasional crop of grass, or grain may be taken.—*Downing.*

ANSWER TO CORRESPONDENTS.

Degeneracy of Apples by, continued Grafting.—I have been informed by some of our oldest innabitants, that the uniform effect of grafting successively from a graft, is, degeneracy of the fruit; that the degeneracy commences with the third remove from the parent stock, and is increased with each successive departure: Thus the fruit of a graft taken from a seedling stock, is better than the original; that the fruit of a graft taken from this graft, will be about equal to the preceding; but that the fruit of a graft taken from this latter, will be inferior to the preceding; and that the next will be still worse, and so on indefinitely. *Query.*—Is it always so? H.

No, not *always* so, nor so in any case. What would be the natural result of this law of *degeneracy?* Why, it is plain that our best apples would, in perhaps fifty years from the seed, be no better than crabs. Bad modes of propagating, the use of bad stock, bad culture, &c., &c., causes degeneration in trees, and consequently in the fruit; but grafting alone, under proper circumstances, does not, nor never has, caused degeneracy. On the contrary it may, and in many cases does, greatly contribute to the amelioration of fruits, as most cultivators very well know.

Garden Snail or Slug.—Can you inform us of any remedy for the snail? Many of our gardens in Palmyra are badly infested with them. They cut down our cabbage plants, tomatoes, cucumbers, squashes, corn, pumpkins and choice flower seed plants, almost as fast as we can get them out of the ground. They appear early in morning and evening, by hundreds. The first we saw of them was last season, destroying our cabbages.

We have tried ashes and lime, and for a time it makes them writhe in pain, but soon appears to loose its strength and they cease to mind it. Our borders are also troubled with black ants, large and small. Any information in the Farmer will greatly oblige many here, and elsewhere as I learn. R. G. Pardee.—*Palmyra, N. Y.*, 1849.

Air-slacked lime can hardly fail to destroy the slugs. It should be applied early in the morning, in the evening, or after a rain. Lime water and other caustic solutions are used sometimes with success. We have seen it suggested some where to place at short distances through the garden, small heaps of bran. The slugs assemble round these and can the more easily be killed. During the heat of the day a great many may be destroyed in the shade of garden fences, plants, or other objects about the garden.

Ants are destroyed by inundating their retreats with *strong salt water, boiling water*, or *water and oil.* To prevent them from injuring fruit, a ring of some sticky substance like paint, may be put around the tree, and renewed, to prevent their ascent—or a band of wool, or some such material, will effect the same object. If they once get into a tree they can be trapped with vials of sweetened water hung among the branches.

Early Richmond Cherry Seeds.—(I. F.) We know of no reason why good well ripened seed should not grow. Your failure may be owing to some mismanagement in saving the seed ; sometimes we fail entirely with the Mazzard and others. The seeds of all cherries should either be sown immediately when gathered, or be cleaned of the pulp and put away in earth or sand till planting time.

The Apple Tree Borer.—(A Subscriber, Windsor, N. Y.) This is no doubt, the insect you have found in your trees. The larvæ is thus described by Harris, in his "Treatise on Insects" :—"Whitish grubs nearly cylindrical, and tapering a little from the first ring to the end of the body.—The head is small, horny and brown ; the first ring much larger than the others, the next two are very short and with the first, are covered with punctures and very minute hairs; the following rings to the tenth inclusive, are each furnished on the upper and under side, with two fleshy warts situated close together, and destitute of the little rasp like teeth that are usually found in the grubs of the other capricorn beetles; the eleventh and twelfth rings are very short, no appearance of legs can be seen, even with a magnifying glass of high power." The lervæ state continues two or three years. The safest and surest method to get rid of them, is to cut them out carefully with a knife, or they may be killed by a wire thrust into their holes.

Paradise Stock.—(T. H., Richfield.) The usual method of propogation is by layers. Those used in this country have so far been mostly imported.

BOTANY.

STRUCTURE AND FUNCTIONS OF THE STEM.

Plants are divided into *exogenous* and *endogenous*. The *exogenous* are those which grow by accumulation, or layers of matter from the outside. This class includes nearly all forest trees and most shrubs and herbaceous plants of temperate climates.

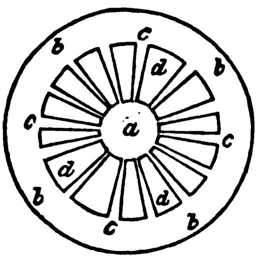
The *endogenous* plants are those which grow from the inside, or by accretion of matter within that already developed. Most of the bulbous plants of temperate regions, all the grasses, and the palms, cane, &c., of tropical countries, are endogenous.

The *exogenous* stem consists of bark, wood and pith.

The *pith* is a light spongy substance, at the centre of the stem; it is composed of cellular tissue, and seems to exercise its peculiar functions only during the earlier growth of plants. (Wood.)

The *wood* is composed of cylindrical or concentric layers, intersected by medullary rays, which are those thin dense plates of wood dividing the "grains," and are large and easily seen in a piece of beech or oak wood which has been split. The pith, together with the first layer which incloses it, are the product of the first year's growth; one new layer is formed every succeeding year,—so that the number of rings or "grains" at the base of the stem indicate correctly the age of the tree.—Each layer is composed of woody fibres, vasiform tissue and ducts.

Fig. 1.



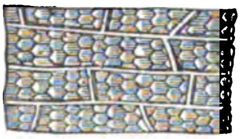


Fig. 2.

[Fig. 1 represents an exogenous stem of 1 year's growth; a, pith ; b, bark ; c, medullary rays ; d, woody bundles of fibre. Fig. 2, laticiferous vessels of the bark.]

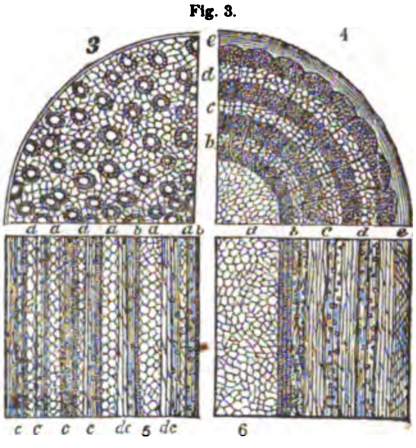
The outside, lighter colored layers constitute the *alburnum* or "sap wood ;" the brownish layers inside are harder than the sap wood, and are hence called the *duramen*.

The bark forms the external covering or integuments of the stem and root. The bark consists of three distinct layers : the outside covering is called the *epidermis*,—this layer is sometimes covered with a coating of gummy, oily or resinous matter. The middle layer is the *cellular integument;* and the inner coat the *liber*. The two outer layers are of cellular structure, while the inner one is both cellular and woody.

The *sap* is carried by the vessels through the alburnum to the leaves, with the vessels of which they communicate ; while in the leaves, the sap undergoes some changes, (not well understood,) by means of the air and light, by which it is converted into a fluid called *latex*. From the vessels of the under side of the leaf, it descends by the vessels of the inner bark ; part of it is carried inwards by the pores of the medullary rays, and diffused through the stem, while the remainder descends to the roots, and is distributed through ,them. Sap is milky, gummy, saccharine bitter, &c., in various plants.

At the end of spring a portion of the descending sap, which is now transformed into a viscid glutinous matter called *cambium*, is deposited between the liber and the wood, becomes organized into cells, and forms a new layer upon each. Soon afterwards, the new layers are pervaded by woody tubes and fibres, which commence at the leaves and grow downwards.—"The number of layers in the bark and wood will always be equal." (Wood.) The outer bark of young twigs seems to perform the same function as the leaves ; in the cactus, staphelia, and other plants which produce no leaves, the bark must perform the same office as the leaves do in plants which produce them. (Johnston.)

Fig. 3.



[Fig. 3.—3, horizontal section of an endogenous stem, exhibiting the bundles of woody fibre, spiral vessels and ducts, irregularly disposed in the cellular tissue : 5, a, a, cellular tissue ; b, spiral vessels on inner side of dotted ducts, c, c ; d, woody fibre on the exterior side ; 4, stem of three year's growth ; a, pith ; e, bark ; b, c, d, successive annual layers ; 6, a, pith ; b, spiral vessels of the medullary sheath ; c, dotted ducts ; d, woody fibre ; e, bark.]

The *endogenous* stem exhibits no distinction of bark, wood and pith,—and no concentric annual layers or grains. It is composed of cellular tissue, woody fibres, spiral vessels and ducts, the same as that of exogens. The cellular tissue exists equally in all parts of the plant ; the rest are in bundles, imbedded in the stem : "each bundle consists of one or more ducts, with spiral vessels adjoining their *inner* side next to the centre of the stem, and woody fibres on the outside, as in the exogen.

"A new set of these bundles is formed annually, or oftener, proceeding from the leaves, and passing downwards in the *central* parts of the stem, where the cellular tissue is most abundant and soft. After descending awhile in this manner, they turn outwards and interlace themselves with those which were previously formed."—*Rodgers' Scientific Agriculture.*

* * *

Weeds in Gravel.—For more than ten years past, says a recent writer, I have used salt, (but not in solution,) for destroying and keeping down weeds in my gravel walks, with perfect success, and without perceiving that the application acted as a stimulant to reproduction. The contrary is the case. I sow the salt by hand in dry weather, and sweep it about thin, and as regularly as possible. I have seldom occasion to do this more than once in twelve months.

* * *

Never court the favor of the rich, by flattering their vanity and their vices.

Ladies' Department.

DOMESTIC EDUCATION.

The time is coming, when domestic duties are expected to be performed upon scientific principles; and we are bound to employ every means in our power to make ourselves acquainted with the sciences pertaining to our domestic affairs. A knowledge of chemistry and dieteties, in a cook, is invaluable to a family. Information regarding the laws of health, and life, and mental philosophy, is absolutely necessary to the proper rearing of children. The suffering I have seen and experienced for want of knowledge, and the almost incredible advantage gained by the application of a few practical ideas, makes me very desirous for others, as well as myself, that we should have "more light."

I think, however, it is not proper that we should always be in performance of the sober duties of life. Nature does not bestow all her care on the sturdy oak and mountain pine, but adorns the landscape with an endless variety of fanciful colors and forms, enlivens the whole music, and the frolicsome play of animated beings. Nor did she fail to implant in the human mind faculties harmonizing with the beauty, melody, and gayety of external nature, which find a legitimate sphere of action in ornamental horticulture, vocal and instrumental music, &c. **Amanda.**

Female Culture.—The great entertainments of all ages are reading, conversation and thought. If our existence after middle life is not enriched by these, it becomes meagre and dull, indeed—and these will prove sources of pleasure just in proportion to the previous intellectual culture. How is that mind to have subject matter of pleasurable thought during its solitary hours, which has no knowledge of the treasures of literature and science, which has made no extensive acquaintance with the distant and the past? And what is conversation between those who know nothing? But on the other hand, what delight is that mind able to receive and impart, which is able to discuss any topic that comes up, with accuracy, copiousness, eloquence and beauty? The woman who possesses this power can never fail to render herself agreeable and useful in any circle into which she may be thrown, and when she is so, she cannot fail to be happy. A full mind, a large heart, an eloquent tongue, are among the most precious of human things. The young forsake their sports and gather round, the old draw nigh to hear, and all involuntarily bow down to the supremacy of mind. These endowments add brilliancy to youth and beauty, and when all other charms are departed, they make old age sacred, venerable, beloved.

Invention for the Ladies.—A lady in this State is about to apply for a patent for an invention which is at once ingenious, useful, and exhibits inventive qualities of no common kind. It is an article of domestic furniture, which answers for a cradle, a baby jumper, a table for the child to amuse itself with its play-things, and it can be transformed in a moment, to a seat with castors on it, by which the child can by its own power, use it as a walking chair, and move it from place to place simply by pushing it.

To Dress Rice.—A lady recommends to us the following: Soak the rice in cold salt and water for seven hours—have ready a stew pan with boiling water, throw in the rice and let it boil for ten minutes, then pour it in a cullender, cover it up hot by the fire for a few minutes, and then serve. The grains are double the usual size, and distinct from each other.

Boys' Department.

PREMIUM ARITHMETICAL QUESTIONS.

The following letter from Mr. Clark, shows that only one of the Premium Questions published in our February number has been correctly solved:—

Mr. Moore:—I have just finished perusing the package of letters that you forwarded to me at Geneseo, and which only reached me last week. After examining them all I do not find one correct answer; and as but one answer has been received, I will announce that as the successful one.

Solution of First Premium Question.—The premium for the solution of the tree sum has been awarded to D. M. Berry, of Holley, Orleans county, N. Y. Mr. B. has not only given the correct answer, but the *only correct answer* that has been received. The answers are,

57.09÷
92.91—

I have received some two hundred or more letters giving answers to this question.

The other questions have not been solved, and will remain open for solution. Isaac A. Clark. *Nunda, N. Y., May* 21, 1849.

Errata.—The illustrations given to my rules for finding the square of any series of numbers, (in the April No. of the F.) are rendered unintelligible by the omission of the proper signs. Please insert the following:

For Rule 1st,—12^2 is equal to 144; and twice twelve increased by one, is 25; which, added to 144, will make 169, the square of 13, the next higher number, &c.

For Rule 2d, 12^2 is equal to 144; and twice twelve, diminished by one, is 23; which, taken from 144 will leave 121, the next lower number, &c.

H.

Moral Character.—There is nothing which adds so much to the beauty and power of man as a good character. It is his wealth, his influence—his life. It dignifies him in every condition and glorifies him at every period of his life. Such a character is more to be desired than every thing else on earth. No servile tool, no crouching sycophant, no treacherous honor seeker ever bore such character. The pure joys of righteousness never springs in such a person. If young men but knew how much a good character would dignify and exalt them, how glorious it would make their prospects, even in this life, never should we find them yielding to the groveling and baseborn purposes of human nature.

Spoken Against.—What if people do speak against you? Let them feel that you are able to bear it. What is there gained by stopping to correct every word that is whispered to your discredit? Lies will die, if left alone. Slander never kills a sterling character.

Never go back.—Never go back—never. What you attempt, do with all your strength. Determination is omnipotent. If the prospect is somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but the strong arm of death can extinguish. Energy and perseverance are more potent than the gold of drones.

Editor's Table.

Errata.—In the article on Devon Cattle in June number, page 131, the printer added an extra cypher to the weight of oxen—making thousands, instead of hundreds. The intelligent reader would of course discover the unintentional Munchausen.

Wisconsin Farmer.—We have received the first five numbers of a new journal, bearing the above title, published at Racine, Wis., by **Mark Miller**, Esq., late of this city. The Farmer makes a very creditable appearance in all respects—being well conducted, neatly printed, and "done up" in the best form, *octavo*. The work merits, as we hope it will receive, the cordial support of the farmers of the thriving and productive State in which it is published. Monthly—50 cents per annum, in advance.

The Horticulturist.—The June number closed the third volume of this journal, and the fourth commences with the present month. It is to continue under the editorial supervision of A. J. **Downing**, Esq., and the public have the assurance of the veteran publisher, that the reputation and high character of the work will be sustained. Published monthly, 48 pages octavo, at $3 a year. Address **Luther Tucker**, Albany, N. Y.

"**The Plough, Loom and Anvil.**"—This sterling work merits an extensive patronage. It is conducted with signal ability by the pioneer agricultural editor, J. S. **Skinner**, Esq. The second volume commences this month, and the present is a favorable opportunity to subscribe. Terms, $3 a year; two copies for $5, and five copies for $10—in advance. Address J. S. **Skinner & Son**, Philadelphia, Pa.

The American Farmer also commences a new volume this month. It ranks among the best journals in the country. Published monthly, at $1 a year. A. **Sands**, Baltimore, Md.

Jefferson Co. Ag. Society.—This is one of the best sustained Societies in the State The officers for the present year are—**Moses Eames**, President; Edmund Kirby, Benj. Maxon, Charles Wilcox, Edwin Carter, Alvin Cooledge, J. N. Rottier, David Montague. J. C. Cooper, Nathaniel Utley, and Hiram Hubbard, Vice Presidents; O. V. Brainard, Treasurer; John C. Sterling, Cor. Sec'y. E. S. Massey, Rec. Sec'y,. Next Annual Fair to be held at Watertown, Sept. 26th annd 27th. The premium list is extensive and liberal.

Hussey's Reaper.—It will be observed, by reference to an advertisement in this number, that Messrs. **Rapalje & Briggs**, of this city, are agents for the sale of this valuable machine in Western New York and Canada.

Stereotyping.—We would direct those wishing any thing in this line to the establishment of Messrs. **Jewett. Thomas & Co.**, of Buffalo. The present volume of the Farmer is being stereotyped by them—to whom we are, in a great measure, indebted for the neat appearance of the numbers already issued. The conductor of their foundry, Mr. E. F. **Beadle**, is one of the best stereotypers in the State.

Westward Ho!—We have just received a list of subscribers to the Farmer from *Minnesota Territory*.

Wheelers' Patent R. R. Horse Powers and Threshing Machines.

THE attention of Farmers is solicited to the following extract from a communication of J. N. **Rottier**, Esq., of Lafargeville, N. Y., June 6, 1849, concerning Wheelers' Patent Horse Powers, &c

To H. L. **Emery**:—"The fact is, the whole of the Machine is an admirable simple contrivance, and that any improvement could be made to it, would seem, incredible to me, if I had not your word for it. Practically a farmer, I have used these fourteen years, a great variety of Threshing Machines, Horse Powers, &c., but with none am I as well satisfied as with yours, purchased of you two years since. One year more and mine will have paid for itself, and then I would not take $200.00 for it, and do without another like it. With a change of horses in the afternoon and hands enough to stack or take away the straw, I believe I can thresh with it as much per day as with any large six horse machine, and with as much ease for the horses. But then we do not want all the neighbors to help us, as three of us generally thresh from ten to twelve hundred sheaves in a day, beside taking care of a large stock of cattle, &c. It is in fact, the very machine which should stand on the barn floor of every farmer, or where the farm is not large enough, two or more farmers should join and own one together—change works and do their own threshing.

J. N. R."

NOW IN PRESS,

TO BE PUBLISHED ON THE FIRST OF AUGUST,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist, containing more than triple the matter of the former editions, having been wholly re-written, so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It will contain more than

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole will form a handsome duodecimo volume, at the low price of One Dollar. July 1, 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*.

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years, and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple, substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention.

J. A. HOLMES & CO.

Brockport, March 15, 1849.

Choice Strawberry Plants for Sale at the Mt. Hope Garden and Nurseries.

AUGUST and September being the best time for forming Strawberry Plantations, we offer for sale on reasonable terms, the finest varieties now cultivated. At the head of the list we place BURR NEW PINE, which, (size, flavor and productiveness being taken into consideration,) is perhaps the best Strawberry yet produced. Also,

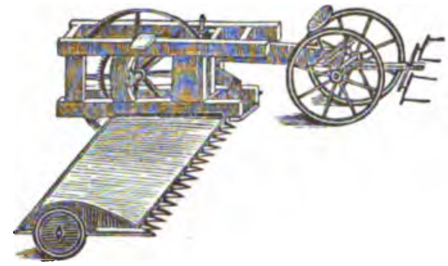
Myatts' British Queen,
Bishop's Orange,
Boston Pine,
Burr's Rival Hudson.
Burr's Columbus,
Black Prince,
Hovey's Seedling,
Large Early Scarlet,
Princess Alice Maud.
Swainstone's Seedling.
Deptford Pine,
Ross's Phœnix,

And a variety of others, such as Alpine Red Bush, Alpine White Bush, Alpine-Red Monthly, White do., Wood Red and White, and a variety of others, to which we invite the attention of all who intend to plant the Strawberry. A good article costs but little more in the first place than a poor one, and re-pays tenfold.

Rochester, July 1, 1849. ELLWANGER & BARRY.

Morgan Colt for Sale.

A Bright Bay Horse Colt. nine months old, of great promise, sired by Gen. Gifford. from a mare of unsurpassed travelling qualities. Inquire at this office. or of J. DORR, Scottsville. [7-1t*]



HUSSEY'S REAPING MACHINE.

TO THE FARMERS OF WESTERN N. Y. AND CANADA.

WE would respectfully call the attention of Farmers to the fact, that we have the exclusive agency and exclusive sale of the above named Reaper. in all that part of the State of New York west of a line running north and south through Canandaigua ; and also in Canada. We sell the Reapers at the manufacturers prices, adding cost of transportation. They can be examined at our store.

All who design purchasing, are earnestly requested to hand in, or mail their orders at once. This will enable us to have on hand in season, all that may be required for the above named territory, and prevent any being disappointed. as might be the case if orders were delayed till the harvest had begun.

That it is the best Reaper made, and that it would be greatly to the advantage of Farmers to have them, there is no doubt.—Annexed are a few of the many certificates which might be given

RAPALJE & BRIGGS,
Genesee Seed Store & Ag. Warehouse,
Rochester, July 1, 1849. Rochester, N. Y.

CERTIFICATES.

AUBURN, February 17, 1847.

MR. THOMAS R. HUSSEY :—I have used one of your Grain Reapers for three years, which cuts five feet. I can cut fifteen acres in one day, and in doing so, I gather the grain as clean as it can be done with a sickle. I much prefer it to any other mode of cutting grain. J. M. SHERWOOD.

MR. THOMAS R. HUSSEY :—Sir : I have used your Reaping Machine for six years, and consider it one of the most profitable Machines that can be used on a farm, and could not be induced to do without one. I can cut from fifteen to twenty acres in one day, and can get lodged grain better than in any other way. I can recommend this Machine to all farmers, as a cheap and expeditious way of getting grain. Scipio, March 6, 1847.

ISAAC AKIN.

John Delafield. Esq., of Oakland Farm, near Seneca Lake, has this season cut 104 acres of wheat in eight days, with Hussey's Reaping Machine, at cost of,

1 man and team,................	1,50	per day.
Boy to drive,..................	50	do.
	$2,00	do.
8 days,........................	$16,00	
Interest on cost of Machine ($100) one year,........	7,00	
Total,.........................	$23.00	

The same work would have taken six cradlers eight days : this, at $1.50 a day, board included, would amount to $72, showing a saving by the Machine of $49 ; which Mr. D. justly remarks, is nothing, compared to the anxiety which every large farmer suffers from the paucity of good cradlers, their selfish caprice, and their extortionate prices during the wheat harvest. Many a farmer, with an excited, wo-begone face, have I seen this season, riding about in search of cradlers ; 'tis true, he could find plenty of wild Irish and others, who, like Highland Willie, could "neither say nor do ;" but experienced cradlers were few indeed ; and when found, only think, the price of two bushels of wheat for a single day's work.

This Machine is drawn by a pair of horses on low wheels ; it cuts a swarth five feet wide with twenty knives, working horizontally, which are to be sharpened once a day with a whetstone.—A man sitting on the side of the platform, pushes off the cut grain with a rake, to the binders. The work was done expeditiously and neatly—not a waste head was to be seen. A field of oats had been cut with the same result.

My faith in the Machine was secured the moment I heard Mr. D. dilate upon the ease of both body and mind with which he had compassed his present harvest ; when I saw the execution it had made, I had no longer a doubt of its economy and usefulness. It is one of the few patented articles of the present day which is no humbug.—[*Genesee Farmer*.

The Committee on Agricultural Implements regret that farmers and mechanices have been so remiss in not bringing out valuable implements, known to have been put in successful operation, within a few years, in different parts of this country and this State—among which are,

1st. Hussey's Reaping Machine, upward of thirty of which are owned in this county. Twenty of these were introduced the last harvest. The work done by them has been eminently satisfactory the past season. Mr. Bryan Jackson and Col. J. W. Andrews report that they cut, with one of the largest size, 54 acres of wheat in two days. Mr. William Bowman reports that he cut 14 acres in half a day. These are extra days' work, and can only be accomplished with good horses, and at good speed. From 15 to 20 acres may be deemed a fair days' work.—[*Extract of a Report from the Newcastle Co., Delaware, Agricultural Committee.*

MR. HUSSEY—Sir : It is with pleasure that I send you my certificate to recommend your valuable Wheat Reaper to the public.—I have now used it four seasons, and am satisfied that where the ground is free from large stones and stumps, it is more expeditious, cheaper, and will save from one-half to a bushel of wheat per acre more than the common way of harvesting ; and it is not more than three-quarters as much work to thrash the same as when cut by cradles ; and can cut from 15 to 20 acres per day.

Scipio, March 12, 1847. BENJAMIN OLNEY.

THOMAS R. HUSSEY, Esq.:—I have used one of your Reaping Machines this season, with great satisfaction, and consider it one of the most valuable labor-saving Machines in use. I cut my whole wheat harvest (one hundred and fourteen acres) with it this season. It gathers the grain clean, and saves from one and a half to two bushels an acre over the cradle. I cut *twenty-five acres* of wheat with it in eleven hours and a half. I consider it *the* Machine—and there is no other that can be compared with it. The principle of it is right. and I can cheerfully recommend it to all farmers, as a labor and money saving Machine.

Seneca Falls, Aug. 15, 1848. G. V. SACKET.

[From the Genesee Farmer]

MR. EDITOR :—In the midst of the wheat harvest, in the month of July, I paid a visit to Prairie Ronde, in this county, and have had an itching ever since to send you a description of the way they do up the harvesting on a large scale—premising that the prairie contains about 24,000 acres of plow land literally as level as the house floor, of the richest quality.

I saw Hussey's Reapers cutting thirty acres per day, with four horses, employing nine binders. The farmers thrash much of their wheat in the field from the shock, with a machine which gears on one of the wagon wheels. There were six thousand acres of wheat on the prairie, and five-sixths of it was cut by Hussey's and Moor's Reapers, and it will average 20 bushels per acre.

Yours, respectfully, KALAMAZOO.
Prairie Ronde, Kalamazoo, August 19, 1845.

TO THE EDITOR OF THE AMERICAN FARMER :—Dear Sir : Some months ago I received a letter from you, making enquiries of me relative to Hussey's Reaping Machine. When your letter reached me I was on the eve of leaving home for the summer, and since my return home, my engagements have been of such a character as to cause me until the present to neglect replying to it.

I have used one of Hussey's Machines one season, and though under circumstances not very favorable for the Machine. I take pleasure in stating that its operation was satisfactory. During my harvest, which was about three weeks' duration, this Machine was kept constantly at work, with the exception of a day and a half ; yet I did not ascertain how many acres it would reap. Mr. Collins, of Lake Scuppernong, also used one last season, and from him I learned that he had cut upwards of twenty acres a day.

There is certainly much less wheat left in the field by one of these Machines than is by the ordinary method of reaping by the scythe or reap hook ; it cuts close, lays the straw smoothly, thus rendering the tying of sheaves much easier.

Edenton, N. C., Jan. 28, 1848. TH. D. WARREN.

[From the Richmond Planter.]

The following communication is strongly in favor of Hussey's Reaping Machine :

I have had in operation on my plantation, this year, both Hussey's and McCormick's Reapers. Now, as you have asked me to furnish the "Planter" with the result of my own experience, and opinion as to the comparative merits of the two Machines, it is now at your service. I have had them both in operation (as the weather would permit) for the last fortnight, and have cut with the two upwards of two hundred acres of wheat. Both Machines have been, I think, very fairly tested, in all qualities of grain, from wheat five feet and more in height, both standing up and lodged and tangled, and averaging, as is supposed, from thirty and forty bushels, down to light, thin wheat, not averaging more than four bushels, (being some galled hills.) and I am candidly and decidedly of opinion that Hussey's Machine is superior. So well pleased am I with its performance, that I have ordered another Machine of Hussey for my next harvest, and probably two, for my father's plantation. I consider this Machine invaluable to the grower of wheat, and would recommend every farmer who grows even fifty acres of wheat, to purchase one. He may rest assured that he will be pleased with his purchase. I shall probably be in Richmond shortly. J. POLLOK BURGUYN

Occonichee Wigwam, near Halifax, N. C., June 20, 1846.

☞ For further information relative to above named Reaper, see July number of the Genesee Farmer for 1848.

A New Book for every Farmer.

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to practical Agriculture: by M. M. Rodgers, M. D., with the approval and assistance of several practical and scientific gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and younger agriculturists.—[*Prof. Chester Dewey Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N. Y. Farmer and Mechanic.*

"It appears to be exceedingly well adapted for the purpose of instruction. It is concise and plain—neither too much nor too little."—*Hon. Zadock Pratt.*

"We have seen enough to convince us that it is a work of rare merit, such an one as will meet with the approbation of all intelligent readers. Every agriculturist who reads and digests should procure the work."—*American Farmer, Baltimore.*

"We commend the work to the Farmer, especially to the young farmer, as well worthy of his attention."—*Berkshire Culturist, Pittsfield, Mass.*

"We think the author has ably performed the difficult task of rendering science easy to the practical farmer."—*New England Farmer, by S. W. Cole.*

ERASTUS DARROW, Publisher and Bookseller.
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally.

⁂ Darrow has a large stock of BOOKS at wholesale or retail, Orders promptly answered.

Kinderhook Wool Depot.

THE success of this enterprize, and the steady increase of business during the past four years, has induced the subscriber to associate with him Mr. Thomas M. Burt, as a partner in the business. The integrity and correct business habits of this gentleman are well known to many prominent men throughout the State; and for more particular information, reference may be made to R. H. King, Esq., or to John T. Norton, Esq., of Albany.

With increased facilities for extending their business, the enterprize will be conducted on the same principles as heretofore:

1. The fleeces will be thrown into sorts according to styles and quality. 2. A discrimination will be made between wool in good or bad condition. 3. All who desire it can have their clips kept separate. 4. Sales will be made invariably for Cash. 5. The charges will be, for receiving, sorting and selling, one cent per pound, and the insurance, which will be twenty-five cents on $100 for a term of three months. 6. Liberal advances in Cash made on the usual terms.

Wool forwarded from the West and North should be marked H. B. & Co., Kinderhook, N. Y., with the initials of the owners name on each sack, and shipped to East Albany.

H. BLANCHARD.

Kinderhook, N. Y., May 18, 1849.

After the 1st of June the business will be conducted under the name and firm of H. Blanchard & Co. Reference can be had to

J. P. Beekman, Kinderhook, N.Y.
B. P. Johnson, Albany, "
L. A. Morrell, Lake Ridge, "
D. S. Curtis, Canaan, "
C. W. Hull, New Lebanon, "
J. Murdock, Wheatland, "
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Nath'l. Sawyer, Cincinnati, O.
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Freeland, Stuart & Co., New York City.
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An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock, crops in ground, and farming utensils, &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him. Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester.

[5tf. JOHN OGDEN DAY.

Nursery to Let or for Sale.

THE Subscriber has a Nursery 1¼ miles from the Erie Rail Road Depot, from the Chemung Canal on a Plank Road running into Pennsylvania. I propose to lease it, for a term of years, or sell it, or take a partner and carry it on.

Elmyra, N. Y., 1849. DYAR FOOTE.

Back numbers (and volumes) of the Farmer promptly supplied to all new subscribers.

Wheeler's Patent Horse Power and Thrashing Machine.

HAVING increased facilities for the manufacturing of the above Machines in this city, the public can be supplied with them at short notice, at wholesale and retail.

To those farmers who wish the machines to sell, and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale, and warranty, see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist; also, catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them, and having been extensively used since 1841, are known to be durable—and are much improved in several respects.

The cost of thrashing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season:

Five men in thrashing time to thrash and clean, averaging 200 bushels per day for market,	$5 00
Two horses,	1 00
Boarding 5 men and two horses, at 3s,	2 63
	$8 63

Amounting to a little over 4¼ cts. per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependent upon others for labor or machines.

While his expenses, when he hired machines were never less than the following:

For thrashing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine,)	2 00
Six men, (besides two with machine,)	6 00
Boarding all hands and horses,	5 25
	$25 75

Amounting to about 10¼ cents per bushel. And if to this be added the average loss by imperfect thrashing and separation of grain from straw, more than with Wheeler's Thrasher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15¼ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of grain-growing farmers for thrashing; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention. HORACE L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

Woodbury's Horse Power and Separator.

THE Subscribers, having erected extensive works, for manufacturing Woodbury's Patent Improved Horse Power and Separator, are prepared to furnish a machine to order, combining greater simplicity, durability, and operating much easier than any other in use. The Horse-Powers are mounted, and operated on wheels, thereby saving three-fourths the usual time in setting up—and we will warrant it, together with the Separator, superior to any in use.

Communications for further particulars, (post-paid,) cheerfully responded to. J. & D. WOODBURY.

Rochester, N. Y., June 1, 1849. (5-3t*)

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD, GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1, 1849.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office. See list of works and prices in advertising department.

Also—complete sets of the Farmer from its commencement, (except the 2d volume,) substantially bound, which we will sell at 50 cents per volume. These volumes are not suitable for sending by mail—but we have copies of vols. 6, 7, and 8, bound in paper covers, which may be mailed.

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Market Prices of Agricultural Products.

New York, Thursday, June 21.

FLOUR AND MEAL.—The market for Flour is without marked change but rather heavy. At the close, however, there was rather more firmness. The receipts are still very moderate. The sales are 7,500 bbls, of which 3,500 were fine at $4 06 *a* 4 12½ with some at 4 18¾. The range for superfine is 4 37½ *a* 4 50 for common and good State; 4 50 *a* 4 62½ for good and straight Western, and 4 87½ *a* 5 for pure Genesee—fancy 5 12½ *a* 5 37½. There were also sales within a few days of 5,000 or 6,000 bbls, sour at 3 87½ *a* 4. for shipment including a large portion of the quantity on the Market. Of the sales to-day, 5,000 bbls were for export The sales of Southern are 600 or 700 bbls at 4 87½ *a* 5, mostly at $5. Meal is firm at $3 for Jersey, with sales 400 bbls. and 500 do. Brandywine at 3 06. Rye Flour is $3 *a* 3 06. with sales 1.000 bbls.

GRAIN—For Wheat there is but a moderate demand, with large supplies. The market is heavy. We hear of no transactions.—Corn is also heavy. with sales 65.000 bush at 53c. for damaged, 59c for Jersey round white, 59 *a* 59½ for mixed Western, and 62½ *a* 63½ for round Northern, closing at about 63c. The market stands 1c a bushel below yesterday's rates The quantity offering is large. Sales 3,000 bush. Rye at 58 *a* 58¼c delivered. Oats are 34½ *a* 36, and in fair demand. Sales 15.000 bush.

PROVISIONS—The Pork market is heavy. mess at $10 37½, and prime at $8 81¼ *a* 8 87½. The sales add up 500 bbls. at these figures At the close mess was dull at $10 37½. In Beef there is a moderate inquiry, with sales 200 bbls. at $11 50 for country mess. $12 50 for city, $12 50 *a* 13 for extra Ohio and Chicago. and $9 25 for prime. Sales 500 bbls Lard at 5¼ *a* 5½c. for grease. and 6½ *a* 7c for fair and prime. In cut meats there are but 350 bbls and tcs at 4½c for Shoulders and 5½ *a* 6¾ for Hams Good demand for Smoked Beef at 11 *a* 11½c. Butter is heavy. with sales Western at 10 *a* 14c—but few lots bring over 12½. Ohio 7 *a* 9c.

ASHES—Are $5 50 for Pearls, with sales 150 bbls. Pots are $5 56 *a* 5 62½. with sales 50 bbls.—*Tribune.*

Wire for Fences.

WIRE of the best quality, of all sizes, bright, annealed, or galvanized. Price, from $7 to $12 per 100 lbs. When galvanized 2½ cents per pound extra. Wire is best galvanized, as this keeps it bright and it lasts much longer.

A. B. ALLEN & CO.,
[7-2t] 189 and 191 Water Street, New York.

Wheelers' Patent Improved Portable Railroad Horse Power and overshot Thrasher & Separator.

THE advantages of the above horse powers are—1. They occupy but little more space than a single horse. 2. They can be moved by the weight of the horse only, by placing them at an angle of 10 or 15 degrees. 3. They are comparatively light and portable, and can be easily transported. 4. They are simply constructed, not liable to get out of order, and move with little friction, the revolving plane gearing without any complex or intermediate wheels, directly into the pinion upon the shaft on which the pully belt runs.

The Thrashers consist of a small spiked cylinder with a concave plane over it, and a level feeding table. There are several improvements in the overshot thrasher. 1. They admit of a level table for feeding, thus enabling the tenders to stand erect, and control the motion of the horse and machine by means of a brake; by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top heavy substances such as stones, blocks, &c., drop at the end of the table, and are not carried between the spikes, by which they and the machine are broken. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is longer, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary thrashers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by those in the concave, which is stationary. 7. The separator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men, with a single Power, can thrash 75 to 100 bushels of wheat or rye; or four men with a double Power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day. All the above are compact and can be carried where wanted complete, or they may be readily taken apart and packed for distant transportation by a wagon or otherwise.

Price of single Power,	$80
" " Thrasher,	$28
" Separator and fixtures,	$7
" Bands for driving, etc,	$5
" Saw mill complete, and in running order.	$35.

The price of the double power, thrasher, separator, &c., complete, is $145, including rights of using. The above are sold singly or together as desired.

The above power is warranted to work well and give satisfaction. For sale at the Agricultural Warehouse and Seed Store of A. B. ALLEN & CO., 189 & 191 Water st., New York. [7-1t]

E. BALDWIN,

ENGRAVER FROM NEW YORK CITY,

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THE GENESEE FARMER,
Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, EDITORS.
P. BARRY, Conductor of Horticultural Department.

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☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

ADVERTISEMENTS.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE. The circulation of the Farmer is from FIVE to EIGHT thousand LARGER than that of any other agricultural journal published in the United States.

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STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—AUGUST, 1849. NO. 8.

IMPROVEMENT.—THE DUTY OF FARMERS.

The spirit which animates our people, is that of progress—improvement. Ever since the Declaration of Independence, *enterprise* has been a distinguishing trait of the American character—and at no period of our nation's history have the skill and industry of our population been more wisely and profitably employed than at this moment. Look at the progress which has been made during the past ten years—the improvements now being introduced into almost every department of Agriculture and Manufactures, Trade and Commerce—and consider the vast influence which this rapid and mighty change must have upon the destiny of our people and country! It is true that this spirit does not wholly prevail, especially among agriculturists; but the period is fast approaching when those farmers who now stand aloof from the aid of science, will be compelled to adopt the inventions and improvements of the age, in order to compete with the more shrewd and enterprising. For example: If A, by the adoption of a superior mode of culture and the use of labor-saving implements, can produce 100 bushels of wheat at an expense of $50, while the same number of bushels costs B $75, it is clear that the latter cannot successfully or fairly compete with the former, in the same market.—And so also in the raising of stock, the growing of wool, and the production of pork, butter, cheese, &c. Those who produce these articles, at the least expense, will ever be the most successful in the accumulation of wealth.

Admitting the correctness of our premises, it is the bounden duty of American farmers to adopt every improvement within their reach—a duty which they owe equally to themselves, their children, and country. The responsibility which rests upon our rural population, is one of great importance, and from which none can shrink blamelessly. As the motto of the age is "Onward," so also should be that of individuals. Each and all should work, both individually and collectively, for the advancement of themselves and their profession.

As an individual, the farmer can do much towards the introduction of improvement in neighborhoods and communities. By a careful study of his profession—the adoption of improved modes of culture and management of crops and stock—the use of judicious labor-saving implements, and a wise economy in all branches of husbandry—any farmer can arouse a laudable spirit of inquiry, which must lead to improvement among those engaged in the same calling in his immediate vicinity. But he can accomplish still more in another manner. By communicating the results of his well directed efforts to the agricultural press, thousands, instead of dozens, would be benefitted by a knowledge of his management and success. The introduction of agricultural books and journals among his neghbors, will likewise prove beneficial to community.

In a collective capacity farmers can exert a powerful influence for improvement, and also promote their individual interests. And here let us for a moment consider the importance of Agricultural Associations, as a means of improvement. Are not the State and County Societies, now in operation, advancing the true interests of the farmer?—And if so, is it not all-important that these associations be well sustained, and others organized throughout the country? We think every intelligent reader will answer these questions affirmatively; and we beg to suggest that they have a duty to perform in this matter. It may truly be said of many farmers, concerning this as well as various other subjects, which demand their attention, that

> "They know the right, and they approve it too,
> Condemn the wrong, and still the wrong pursue."

They admit the benefits of association, but year after year decline or neglect to become active, interested members of the Societies and clubs in their localities. Friends, we respectfully but plainly remark that *you are not discharging your duty in this matter*—and beg you to consider whether some action is not neccssary. The present is a favorable time for exertion in the direction indicated. The annual exhibitions of the various associations are to be held soon, and your aid and influence would add to their interest and value. No matter if you have nothing to exhibit this year—go and see what others have accomplished. Attend the Fair of your County Society, and you will not fail of learning something useful while mingling with others of the same calling and witnessing an exhibition of the products of their skill and labor—and do not forget to enrol yourself as a regular, paying member of the association. In this manner you can essentially aid in promoting the laudable objects in view.

There are various other means of improvement familiar to the intelligent farmer, that should neither be neglected or overlooked by those who desire to keep pace with the progressive spirit of the age.

EDITORIAL CORRESPONDENCE OF THE FARMER.

The Cherokee Country — Inducements to Emigrants — Crops — Price of Lands — Kinds of Timber — Wool Growing — Labor necessary at the South, as elsewhere.

Tunnel Mountain, Ga., July 4, 1849.

If the reader will look on a map of the United States, he will see that the Tennessee River approaches very near the Atlantic in its southern detour into the states of Georgia and Alabama. The railroad constructing by the State of Georgia through the far-famed Cherokee Country, which is to connect the navigable waters of the Tennessee and the Mississippi with the seaports of Charleston and Savannah, approaches its completion. This is a noble Work; and at no point from the Tennessee river to the ocean, do the gradients exceed 33 feet in a mile.— The writer has recently passed over the whole of this line of railroad, being 445 miles from Charleston to Chattanooga, in Tennessee, and on the river by that name. The Tunnel at this place will be the last to be completed, requiring the labor of four or five months. It is 1,475 feet in length, of which 450 remain to be blasted in blue Helderberg lime rock. This dips to the south at an angle of some 75 degrees, at the point in the mountain where the miners are now at work. It is the glory of this age that man is able to drive his steam-chariots and fire-horses, not merely over and around, but *through mountains*, with the speed of the wind.

This region abounds in mineral springs, and is becoming a great resort as the summer residence of planters, in all the low country from North Carolina to Texas. I regard the "Cherokee Country," nineteen-twentieths of which is still in a state of nature, or as the Indians left it, as presenting strong inducements to emigrants from Europe and the northern states to settle upon and improve its fertile lands.— It was surveyed by the state into tracts of 160 acres; and these were drawn by its citizens, in a lottery, paying a few dollars, for the survey and deed of each lot. They are being resold by the holders to actual settlers, and at all prices, from ten to one thousand dollars a lot. For the production of corn and grass, the growing of cattle, mules, sheep and swine, they are not surpassed in the United States. With fair tillage, the uplands yield 50 bushels of corn per acre. For some reason, these limestone lands are not quite so well adapted to wheat culture as I expected to find them. Whether the defect is in the soil or its cultivatien, I am at present unable to say.

Late and extraordinary frosts have quite ruined the wheat crops of this season. Farmers will have to send to Tennessee for their seed. Clover does remarkably well with gypsum, and indifferently without it. Timothy, red-top, and blue-grass flourish admirably on the natural soil, as do oats, peas, beans, millet, potatoes and turnips. It is high enough above the ocean for apples, pears, plums and cherries to do well. It is above the fig climate, and the home of the peach and the vine. To raise apples and pears for the low country, on the line of the railroad, would be a profitable business. I was offered yesterday two lots (320 acres) within a mile of the depot, 45 miles south of this, for $100. I went over the tract. It can all be plowed; is covered with oak and hickory, and wild grass, and has a lime and flint soil.

As in portions of Michigan and Wisconsin fifteen years ago, one can drive a carriage almost anywhere through the Indian burnt forests. I visited a limestone spring eight miles from Oothcaloga Depot, large enough where it issues from the ground, to drive three pairs of millstones. It is in this region that one sees horned cattle, which are *cattle*—a sight which in 18 months' residence at the south, had not before met my eye. Oak is the principal timber, with an occasional pine, black and white walnut, beech and white maple, along the banks of streams. Hickory, white ash, black cherry, and many other kinds of forest trees are met with in riding over the country. These lands are worth about Congress price. Improved farms on river and creek bottoms sell at from ten to twenty dollars per acre. White men everywhere work in the field as they do at the north. It is not a cotton growing region, but strictly a farming climate.

My friend, R. Peters, Esq., from Pennsylvania, has sheep that clip over seven pounds of wool per fleece, and hundreds of acres of the best upland corn in Georgia. I predict that this will soon become a most prosperous wool-growing district. The range for stock is almost unlimited; and the facilities for transporting fat cattle, shep and hogs to the seaboard are as good as any one need ask for.

I do not wonder that the Indians left this their home, and the tumuli where rest the bones of unnumbered generation, with extreme reluctance. I have visited several mounds in Georgia, but leave the discussion to learned ethnologists. Unlike the African race, the Indian spurned the blessings and industrious habits of civilization; and he is fast disappearing in all the late border states, while the hard-working African multiplies with extraordinary fecundity. Being well and regularly fed, as well as worked, the negroes of the south present a striking proof of the value of temperance and industry in promoting sound health, and the rapid increase of the human family. They are rising both physically and mentally, while those that foolishly disobey the command of God to eat bread in the sweat of their faces, are going the other way.

If a person expects to escape work by coming south, or going west or to California, let him disabuse his reason at once. As a people, Providence has blest us with agricultural, civil and religious favors above all other nations; but *the duty to labor* is as incumbent upon Americans as on any other portion of the descendants of Adam. The cheerful discharge of this duty is the doctrine the writer preaches, practices and believes in. Had the aborigines of this continent adopted the rural and mechanical industry of the Europeans when the latter came among them, their posterity would this day rule the land from the Atlantic to the Pacific. The emancipated negroes of St. Domingo refuse to till the earth and they are going back to barbarism, pagan darkness and brutality. Labor is the grand humanizer of our race. Without it, man never rises but a single step above the speechless beasts of the field. With it each generation may excel all prededing ones to the end of time. L.

* * *

The American Farmer very justly remarks that, "Farmers and planters have too long looked supinely on, while power was being stolen from them, to aggrandize other classes, less entitled than they to the fostering care of Government."

AGRICULTURAL EDUCATION.

BY AGRICOLA.

That a system of Education may be adopted, that will give to the Sons of the farmer such information as will be of advantage to him in all the future of his life cannot, I think, be questioned. Difference of opinion will doubtless exist, as to what that education should be. In order to open the way for the examination of this subject, I propose to make some suggestions, as noticed in my former communication.

The student, at his entrance, should be well versed in the common branches of an English Education—and he will then be prepared to enter upon a course of studies that will, if properly attended to, fit him for the active duties of his profession. Let it here be understood, that the pupils are to be employed upon a farm connected with the School, during the entire course, and in their last year each is to be placed in special charge of the various departments of the farm, to test his capacity for management, when he is to leave the school.

The course of instruction which I would recommend, should occupy at least three years—and it should ever be kept in view that the instruction is to be conducted in such a manner, that while the student is thoroughly instructed in the principles of each science, its relation with agriculture are to be specially understood, and their practical application fully carried out in the operations of the farm. The farm should be arranged into separate divisions, so that the different rotations of crops may be pursued, and the advantages or disadvantages of each be fully and practically illustrated for the benefit of the students. A portion of the farm should be allotted for experiments—to be fully carried out under the direction of the teachers, and of which an acconnt should be given to the public as often as deemed necessary. It must be apparent that many experiments, to be of any practical value, must be continued through a series of years, before any final decision can be had.

Without descending into a detail of studies to be pursued, it will suffice to say, that the education should be thorough in every respect—including the modern languages, Chemistry, Mineralogy, Botany, Horticulture, Surveying, Agricultural Engineering, Mechanics, Keeping Farm Accounts, Veterinary Instruction, management of manures, &c., all to be of a practical character, after the manner of the Polytechnic Schools. The teachers to deliver lectures to the students, to accompany them when necessary to the fields, and in every part of their course, to give them a thorough practical knowledge of every thing incident to the management and successful prosecution of the labors of the farm. The farm to be under the direction of a practical farmer, thoroughly versed in every thing that relates to the best method of cultivation suited to this State, and the students to be under his direction, when engaged in the labors of the field.

It appears to me that an institution may be so arranged as to become what all desire—a thorough educator for the farmer's son, fitting him for his profession, and for all the duties of life to which he may be called. This, too, can be done in a manner to lead the student to appreciate his noble pursuit: it will enable him, when he leaves the institution, to feel that he is upon an equality with the students of any other seminary, and that on the great theatre of public life, he is as well prepared as they are to enter, and that without fear of the competition. I am aware that some of the institutions of our country are conducted upon the principle that there is nothing new worth having in education—but we must plod on in the same routine which was laid down by monks in ages gone by. But I am also aware, that we are fast breaking the chains of bondage in which we have so long been bound—and though no prophet or the son of a prophet, I venture to affirm, that those institutions which do not adapt themselves, and that speedily, to the movements of this advancing age, in a practical, useful direction, will soon be numbered among the *things that were.* There is a feeling abroad among the friends of existing institutions adverse to a thorough agricultural institution. They seem to foresee, that if such an institution should be founded upon a scale worthy of the Empire State, that its practical character would soon attract to it, the students from every direction, and the numbers now educated at theirs would soon diminish. It may be so; but if it should, what, I ask, is to prevent us from obtaining a better system, and one that will secure to the largest portion of our citizens an education adapted to their profession in life, for which there is now no adequate provision? As well might the owners of the old sail-boats on the Hudson cry out against the improvements of Fulton, or the driver of the Canastoga wagon, against the lightning swift engine as it speeds in hours through our state, instead of weeks, as he was in the practice of doing. It will alter the character of our seminaries—but it will alter them in accordance with the spirit of the age, and with the genius of our institutions, and all that is necessary for existing institutions, is to adapt themselves to the times, so far as may be necessary for their institutions of a general character, and they need not fear but that they too, will be supplied with students who do not design to make the pursuits of the farmer theirs through life.

Permit me to urge this matter of education upon the consideration of farmers. To you must we look for aid in this matter—and let it not be said, (as it has been in days gone by, and with how much truth I will not say,) "that if any thing is wanted for the improvement of the agricultural interest, you must call upon professional men, *not farmers*, in the Legislature." With the improvements which are taking place in our State—with the intelligence which exists among farmers in every part of this State—I will not for a moment doubt that you appreciate this subject, and that you will be prepared to make your wishes known, in a manner that shall secure the action of your representatives. What subject of more importance to you, I ask, can be brought before the Legislature, than the education of the farmer's sons of our state—and if none more important can be, may I not urge you, to see to it, that a matter so vitally important shall not fail for want of your support—your open, active, and efficient aid?

If a railroad is wanted, how quick are the feelings and interest of farmers on its route enlisted. They can expend money and time to secure its charter and to complete it—and when the education of their sons to fit them to usefulness is proposed, can they be unmindful of how much more importance it is to cultivate the immortal mind, than to add even to their wealth, by these increased facilities of communication? It is often said, that farmers know enough already. This may do for those to say, who boast themselves of their superior acquirements—but I trust no American farmer will rest satisfied with his acquirements, while there is a field of useful knowledge before him to be explored, or a single truth to be ascertained that can add to his store of knowledge, or contribute to the elevation and advancement of his profession. I have long felt that we need, as farmers, opportunities for preparing our sons for their pursuits as they should be prepared. I rejoice that the day seems to be dawning for the accomplishment of the object, and I am desirous, nay anxious, to engage with my brethren in hastening forward this all-important work.

THE SEASON—FRUIT—CROPS—INSECTS, &c.

The last winter in Western New York was decidedly an open one, with little snow, and one or two cold days, such as has not been chronicled in this region for the last twenty years. The thermometer sunk to nine degrees below zero at Rochester, and at the distance of twenty miles from the lake, to twelve and even fifteen degrees in some locations.

Ten degrees below zero begins to affect the fruit bud of the peach, and fifteen is totally fatal to it, at any period during the winter. In this region, about two-thirds of the buds blossomed, but a wet, rainy, and cold period, with an east wind, set in, and immediately after the petals of the flower cast off, the entire leaves of the trees were affected with the *curl*, an enlargement and thickening of the center parts, and they all fell to the ground; and consequently there were no organs to carry on the circulation—the sap gummed and oozed through the bark, and a great portion of the fruit was lost. All those branches that put out the terminal bud again were sound—the others died, so that there is not a quarter crop of that delicious fruit.

The same continuous wet and cold weather in the latter part of May, destroyed the apple, either by a disturbance of the process of impregnation, or a degree of cold that disorganized the tender germ.—They all fell, and many trees cast a good part of their first leaves, as though caused by an early frost.—There is no orchard, that we are advised of, that will produce ten bushels, where it should have produced one hundred. It is a total failure.

Wheat is a great crop, and if the present drought does not continue too long, corn and potatoes will be an average. Hay is a full medium yield, and has been secured in excellent order.

There is an anomaly existing with respect to insect life. The apple tree worm has lately disappeared, as have the black, squash and striped bugs; and the May bugs were scarcely seen. The rose bug is greatly increased on light lands, and the curculio generally. Not one in ten bee hives have thrown out swarms this year.

The *Fire Blight* has attacked the pear tree extensively this season, and is destined to destroy that variety of fruit. It has also affected the apple and quince, but it is never fatal to them, only killing the small branches, as the *virus* is never carried to the body or main branches. The cause of this disease seems to be inscrutable to mortal vision. It is a subject that has excited more discussion than any other vegetable subtilty, except the chess question.—We were for many years a believer of the doctrine of a plethora of sap, more than the leaves could elaborate; but from a daily examination during its operation for some years past, we are disposed to attribute it to a disease, or injury of the bark and outer vessels of the body or large limbs, by the winter or other cause, whereby the sap which rises in the alburnum or sap wood, is unable to return through and between the epidermis and wood; it consequently sours, decomposes, and one day's sun blackens the leaves, and destroys the branch, and finally the whole stock, if not cut off absolutely below the least discoloration.

THE WHEAT CROP.

From information received from different sections we believe the present wheat crop of Western New York will prove far superior to any preceding one for several years. In this county, the crop is much better than was anticipated before harvesting commenced, and many farmers think it the greatest ever produced here. The berry appears unusually bright and plump. We have heard some complaints of the weevil in Seneca, Cayuga, and adjoining counties, but learn from reliable sources that no material damage has been caused.

We have unfavorable reports of the crop in some sections of the west and south-west. The Ohio Cultivator of July 15, says:—"From all the information we can gather, it appears quite certain that throughout a large portion of Ohio the wheat harvest is sadly deficient, owing to the damage by *rust* and the *wheat insect*. A few only of the more northern counties, we believe, have escaped these evils, and are harvesting nearly a fair average crop; but taking the state at large, we are of opinion that full one-half the crop has been destroyed—which is equal to *twelve millions of bushels!* This is an immense loss to our farmers; but we trust they will not be disheartened, especially as the corn and other crops are now quite promising. * * * It is too early, as yet, to form an opinion in regard to the full extent of the damage sustained by the wheat crop, or the effect it may have on prices. In the markets of this region, flour has advanced full one dollar per barrel, but this will not probably be sustained if the accounts from New York and other large wheat-growing States yet to be heard from, should prove favorable." The Cincinnati Gazette of a later date, says, "the deficiency in the wheat crop of Ohio this season, it is now pretty satisfactorily ascertained, will be about one-third, or from 7,000,000 to 8,000,000 bushels."

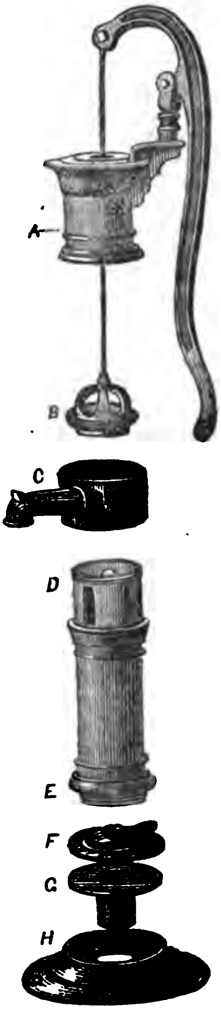
The Indiana State Journal of the 16th ult., thus speaks of the crops in the southern portion of that state: "The continued rain has almost entirely destroyed the wheat crop in this region. Many farmers have turned their hogs upon the fields—the wheat being so much injured as to be unfit for cutting. It is estimated that the crop will not be more than sufficient to supply the demand for home consumption. As a consequence, the price of wheat has raised to eighty cents, and is still going up. Flour has gone up to $5 50 per barrel, and is rising."

The crop in Michigan is said to be good—and the yield is probably above an average one. The news from Central and Northern Illinois and Iowa, is favorable.

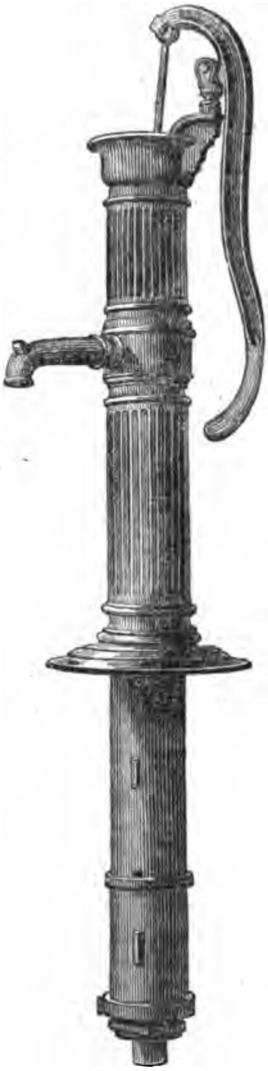
We also have favorable reports from Pennsylvania, Maryland and Virginia. The Richmond Whig states that in all Virginia east of the mountains, the wheat is generally harvested, and that though the crop suffered first from April frosts, and subsequently from rust, yet "it will exceed an average one."

IMPROVED WELL AND CISTERN PUMPS.

WHILE spending a few hours in Seneca Falls, some two weeks ago, we were surprised at the extent of its manufacturing business. Among other establishments, we passed through the extensive Pump Factory of Messrs. DOWNS, MYNDERSE & Co., and were so well pleased with the style, construction and appearance of their improved Pumps, that we requested a description of them for publication in the Farmer. In compliance with the request, Messrs. D. M. & Co. have furnished us with the annexed figures and description, which we present for the benefit of all interested:—



Cistern Pump. Fig. 1.



Well Pump. Fig. 2.

Fig. 1 exposes to view the different parts of the Pump. A represents the cap, or top part of the pump. B, the Plunger or Piston, which contains a Tube Valve, made of brass, and nicely fitted. C, the spout. D, the end of the cylinder which passes up through the ring of the spout, and screws into the cap, A. E, the lower end of the cylinder, which screws into the base, pressing the lower valve, and securing it in its place. F, the lower valve. G, the brass tube to which the lead pipe is soldered. H, the base of the pump. The tube, C, is placed through the base, H, thus forming a brass valve seal, which is important, as it will not corrode, and renders the leather valve much more durable than if placed upon iron, as is usually the case.

It will readily be seen by the construction of these Pumps, that they may be easily taken apart, and access gained to each and every part without disturbing the pipe or platform upon which the pump stands, and that without the use of either screw driver or wrench. By loosening the upper part of the pump, the spout may be revolved around to any desired position, and firmly secured by screwing the cap down on to the ring of the same—thus enabling the Pump to be placed in the corner of a room without the brake or spout interfering or coming in contact with the wall on either side. By raising the brake to its relative height, the water may be let back into the reservoir, thus preventing the pump from freezing in cold weather—and the water may be recovered by a few strokes of the brake. The pump will draw water as well horizontally as perpendicularly.

Fig. 2 represents a large and strong pump, made of iron, and is designed for wells, or an out-door Pump. The construction is the same, being similar to the one described above. The piston and valves of this Pump are located in the lower end of the set length, which runs down three feet below the base. At the upper end of the cylinder, we make a small hole which allows the water to escape from the Pump when it is not in motion—thus preventing it from freezing up in winter. To get at the piston and upper valve, it is only necessary to screw off the top of the pump above the spout, and pull the piston out of the top, which may be done and replaced without taking up the pump or pipe. These pumps we arrange for lead or wood pipe, as may be desired. The whole pump being made of iron, renders it a durable article, as no part can decay, and it will throw water with great ease and rapidity.

It is now several months since the above described pumps have been introduced to the public, and the demand for them is rapidly increasing daily. In all cases where they have been thoroughly tested, they have proved to be a superior article.

* * *

WOODBURY'S HORSE POWER AND SEPARATOR.—These excellent machines are very highly esteemed wherever they are introduced. In the Boston Cultivator of last week, Messrs. T. & C. H. May, of Woodstock, Ct., published a letter stating that this horse power, in their opinion, is one of the best in use, that it is capable of doing more work with less power, than any other with which they are acquainted; requiring the power of only three horses to saw from twenty to thirty cords of hard wood, twice in two in one day, and with ease.

The letter states it to be their opinion that Woodbury's Horse Power and Seperator, for threshing and cleaning grain, cannot fail to give satisfaction to those possessing the power of three horses only, to thresh and clean from fifty to a hundred bushels of oats per hour. This is high testimony indeed.—Our readers will remember that both of these machines are now manufactured at Rochester, N. Y. —*Scientific American.*

Improved Stock.

SHORT-HORN AND NATIVE CATTLE.

BY S. P. CHAPMAN.

[Reply to W. Hanford, jr., page 138 of present volume.]

We regret that our former article was not *definite* enough for our friend Hanford. We gave, as we supposed, a very accurate account of the productions of a few Durhams for the dairy, [and we could easily increase the number if necessary,] and in nearly every instance, the keeping of said cows during, and in some instances previous to the time of trial. If we were deficient in not stating the *exact amount* of food consumed, we would say that it would be very difficult to do so, *especially* when cows are at grass pasture, as was the case with all the examples given, with one exception.

But what we regret still more is, that our friend should write as he did about "premium testimony." When individuals from different parts of the Union and from other countries, too, selected on account of their supposed good judgment in the matter to be decided, having all the facts as to the age, keeping, and management of the different animals offered, fully subscribed and sworn to by their respective owners, give in their decisions, we are free to acknowledge that such decisions has some weight with us, "towards establishing the merits of an animal."

Friend Hanford had no occasion on our part, at least, to have resorted to *any* testimony to prove that there are good milkers among our native cows, for it is something we have never in the least doubted or denied; and least of all had he any occasion for resorting to a "*Sussex bred cow*, owned in Lews, in *England*," "to prove *this*." The ground taken by our friend, in his very excellent and able article of February last, and to which we took exception, was, [unless there had been error in his instruction,]—"That full-blooded Durhams, *wherever* found, were deficient in one, and that the most important qualification," and that they were *great consumers*, requiring an extra *quality* of food. Now, whether we proved that such instructions, (*if* any such were ever given in the Genesee Farmer,) were incorrect, we leave for its readers to decide.

Friend Hanford, after presenting us with a very interesting account of the Sussex Cow, says: "All will admit that her produce was a *little* extraordinary; and it is invariably true that to do things extraordinary with *horned cattle*, they require extraordinary feed and care." With all due respect for the opinions of our friend, we will, with leave, present him with a short extract from a letter recently received from Mr. Vail, of Troy, N. Y. Mr. Vail's cattle, it is true, have generally "short horns"; but we believe, nevertheless, they are classed "*with horned cattle*." Perhaps if they were *longer* horns however, our friend's "invariable" rule might prove a *little* more correct. Mr. Vail says: "I have a full blood Durham Cow, Eunice II., now about seven years old, of my own breeding, which has made this spring, on *grass pasture only, nineteen and one-fourth pounds of butter in one week*. On the 9th day of June ultimo, the milk drawn from her on that day was accurately weighed, and the quantity yielded was 71½ lbs, equal to 35½ quarts, wine measure. Her keep was no better than that of the other cows, and was grass pasture only. I own the dam of this cow, and she gave in one day 32 quarts of milk, wine measure." If the produce of the Sussex cow was a *little* extraordinary, we think the produce of Eunice II, and of her dam, would be considered at least *extraordinary*; and we do think grass pasture is not extraordinary feed.

We commenced a trial with "Ruby," (the heifer purchased of Mr. Vail, and formerly referred to,) the 30th of last month. She produced in one week thirteen pounds and three ounces of butter. She is now 4 years old, and was kept last winter on barley straw until the first of February. During this month, she had hay and straw, mixed whole in about equal quantities. After the 1st of March she was fed good hay, until turned to grass pasture, since which time she has had no other food. The greatest quantity of milk yielded in any one day was 47½ lbs.

That Mr. Colman should have requested Mr. Prentice to put some of his cows on trial, and furnish the readers of his paper with the result, we do not consider as any "abatement" in the least of his high and just encomiums of that noble stock; for it is well known that Mr. P. had some *excellent milkers* in his herd, and Mr. Colman was probably well aware of this fact, when the request was made.—We regret that we have not this entire article of Mr. Colman's. Our extract was taken from the "Cultivator," in which it appeared, taken from the New Genesee Farmer. As to the bull Cœlebs, we certainly wish our friend had commenced his extract just three and a half lines sooner; it would then have read—"Mr. Jaques is of opinion that the *excellence* of his cream-pot breed is *principally* to be ascribed to a *cross with Cœlebs*, but on what rational grounds, it is difficult for me to discover. Their beautiful color," &c. Now, whether Col. Jaques, (whose opinion Mr. C. honestly gave,) who owned this bull, and was well acquainted with every individual in his entire herd, or Mr. Colman, who could evidently have had no such favorable opportunities for forming his judgment, were most likely to be correct, we think is very evident. In relation to the *stock* of Cœlebs, Col. Jaques in a letter to the editor of the "Cultivator," in 1845, page 75, says: "Mr. Leonard Stone, of Watertown, one of our *best* and wealthiest farmers, says he had two cows by I. Coolidge's premium bull, (a son of Cœlebs) that proved the best milkers he ever had."—And the editor previously remarks, "*Many* of his (Cœlebs') progeny were *remarkable as milkers*."

"Has he (Mr. Colman) ever bred or owned a pure bred Durham?" Don't know. Has he? and if so, how many? He might have been unfortunate in his selection, (if he ever owned any,) for we are free to acknowledge that *all* Durhams are not of the same quality. A breed of cattle that contained *none* but *good* ones, would certainly be a desideratum.

"Is Mr. Chapman satisfied?" With what? Our Durhams? *Yes*. With our friend's article? We have no fault to find. That Mr. Colman was not favorable to the Durhams? We were perfectly well aware of this fact before we read our friend's able article, and all we can obtain from one *opposed* to a thing in its *favor*, we think must have some weight. Hear what Mr. C. says in the *same* article extracted from by our friend. [See Gen. Farmer, 1842, pages 3 and 20:] "In addition to these [importations of Durhams] we have had a valuable bull imported by a merchant of Boston * * * and the superior bull "Bolivar," imported by John Hare Powel, of Pennsylvania, from I. Whittaker's stock, in England, *cele-*

brated for its extraordinary dairy properties."—Again same article of Durham cows "in general," Mr. C. says: "The Durham cows *in general*, and especially the selected ones which have been imported on account of these qualities, are *large milkers;* but their milk *seems*, [not *is*,] generally inferior as to richness, or butyraceous properties." That the milk from Durham cows is *rich*, we believe is now very universally admitted. It is well known that the Durhams generally are *good handlers*, and a cow that is a *good* handler, is almost sure to give good milk. We have yet to see a single exception to this rule. We have one full blood cow, "Flora," that gave one pound and one ounce of butter from twelve quarts of milk. This cow gives from 18 to 19 quarts per day, and at the above rate would make over eleven pounds per week. She is an imported cow, and *twelve years old*, and has given milk this year since the 20th of March. She has had no feed but grass pasture for the last eight or ten weeks.

That as a general rule animals consume in proportion to their size, is probably true; but it is subject to very many exceptions. That two horses used in the same team, and weighing nearly the same, do not require an equal amount of food, almost every farmer knows. The one will consume nearly one-third more than the other, and not keep in as good condition. The greater or less consumption of food is owing, after all, much more to the *make* and *build* of an animal than its size [weight.]

"I cannot pronounce them, as a race distinguished and preferable to *all others*, for their *dairy qualities*." Here, friend, take our hat! We won't say any more—until we get ready.

We do not feel in any mood to quarrel with any one for liking another breed of cattle better than the Durhams, for all who choose, have a most undoubted right so to do. And it would afford us much pleasure to see the pages of our various agricultural journals, contain more respecting the merits of all good breeds of cattle. Can't a Short-horn or Hereford owner read a good account of a Devon without flying into a passion? If not, he is certainly unfit to own good stock, for we should really pity the poor animals under his care. We always did believe there was more than one good thing in this great world of ours, and we also believe that there is more than one good breed of cattle. And when some of our friends tell us they have a good Native or Hereford cow, does that prove any thing against the Durhams or Ayrshires?

Bring on, then, those beautiful Devons, with their fine glossy coats—those noble Herefords, with their clean white faces—those fine Ayrshires, with their udders almost as large as their little bodies—those *good* Natives, that should shame all the rest of their breed out of existence—and we'll agree for it the stately Durhams will not be wanting, and let us screw some good brass nobs on their horns, so they shall cease goring each other, and those miserable *scrubs* that now infest our country would soon be among the things that were.

And now, Mr. Editor, in conclusion, will you permit us to ask you one question? You say in substance, in your remarks, "That it is best as a general rule to secure deep milkers whenever they can be found, *without regard to origin*." Now what we wish to know is, if you were offered a choice of two cows of equally good appearance, and equally good milkers, the one descended from ancestors all celebrated for their *extrordinary milking qualities*, and the other descended from poor milkers generally, or perhaps nothing is known of her ancestry, which would you prefer? We fully agree that it is best to secure deep milkers, but in order to *establish* this good quality in our herds, we think it is necessary to know *something* of the origin or ancestry of an animal. *Clockville, Madison Co., N. Y., July*, 1849.

Remark.—In the case cited above, we should of course prefer the cow "descended from ancestors all celebrated for their extraordinary milking qualities."

RECENT IMPORTATION OF SHORT-HORNS.

BY A. STEVENS, OF NEW YORK.

Eds. Genesee Farmer:—On my return from England last spring, I brought with me for account of Col. Sherwood, of Auburn, N. Y., and myself, a short-horn Durham Bull, and three short-horn Heifers; and one short-horn bull calf for I. F. Sheafe, Esq., of Dutchess Co., N. Y. Col. Sherwood, and myself, have had so many inquiries as to these cattle, that I ask a notice of them in your journal.

The bull is "3d Duke of Cambridge;" his portrait and pedigree may be seen in the 4th volume of the English Herd-Book, page 614, (No. 5,941.) He was bred by that distinguished breeder, Thomas Bates, Esq., of Kensington, Yarm, England, who is well and widely known, both in England and America.

The heifers and bull calf were bred by John Stephenson, Esq., of the county of Durham, England, well known as the ownor of the superior and famous Princess Tribe of Short-horns.

In the execution of the commissions of Mr. Sheafe and Col. Sherwood, I was left to my own discretion, they trusting to my judgment. I made a thorough examination of the various herds of Short-horns in England, and from among them selected such animals as I thought would meet the views of my associates, and satisfy the critical scrutiny of American breeders.

These cattle have now been in America five months, and have been seen by hundreds of persons, including many of our best judges and breeders. It gives me great pleasure to say they have met the approbation of all who have seen them. The universal testimony is that in every respect, they are the best short-horns ever imported into America. The vessel which brought them over, encountered weather of great severity, and the voyage was both long and tempestuous, indeed, for twenty days, there was a continued hurricane. The cattle were worn out and reduced. They are now all recovered except one heifer; she is ill and was knocked all to pieces, and has not yet regained her form, and I fear may not.—She was the best of the three heifers before sailing.

The origin of the cattle is this. The late Sir Henry Vane Tempest, of Wynyard Park, county of Durham, England, owned a herd of short-horns, known for its wonderful and unsurpassed excellence. They are designated in England "the Wynyard Breed," or "Princess Tribe." In 1800, Sir Henry bought the original of his herd, the cow Princess, of Robert Colling. After the death of Sir Henry, the Wynyard herd was sold, and the cow Angelina, (a grand-daughter of Princess,) became the property of John Stephenson, Esq. From Angelina are descended the animals which I brought over.

* * *

I have great pleasure in knowing that I have brought to this country, so superior a bull from the herd of that eminent breeder, Mr. Bates. He is the *only* bull in America, got by Mr. Bates' *crack prize* bull, Duke of Northumberland, (1940,) the best Mr. Bates ever bred. Mr. Bates, has *but one* more left, got by the same bull; and Duke of Northumberland is now dead. Mr. Bates repeatedly told me that 3d Duke of Cambridge was more like his sire than any bull ever got by him. Breeders desiring the blood of Mr. Bates, can no where else in this country procure it *with such high characteristics of style, quality, symmetry and substance.*

From the various expression of approval received I select the following. The writer, Lewis F. Allen, Esq., is well known as an extensive breeder of short-horns and as a judge. No person in the United States, has had a more intimate knowledge of the short-horns in our country for the last twenty-five years. He is author of the American Herd Book:—

"Since I saw him, I have thought much on your bull, 3d Duke of Cambridge, and in comparing him in my mind with *all* the bulls I have ever seen, I am more and more impressed with his superior value to any thing *yet* brought into the United States. In short, he fills my mind entirely with all the qualities which a *perfect* short-horn should possess; and I don't know but the heifers are *quite* his *equals* in style, quality, &c. I hope you will have all the success both in their increase, and in the sale of their produce, which you deserve, for our country has *never* before, within my knowledge, received such an acquisition in the stock line as in these cattle. You deserve much for your enterprise, and Stevens a great deal for his judgment in selecting such animals.—They far exceed my anticipations; although I am free to say, I anticipated much from Stevens' selections, with all England for a field to choose in."

This opinion was entirely unsolicited on the part of Col. Sherwood or myself, and wholly voluntary on the part of Mr. Allen.

Steps have been taken to have a portrait of the 3d Duke of Cambridge engraved for publication in the Genesee Farmer for September or October, and of Princess 2d in some future number.

These animals are now at Col. Sherwood's, Auburn N. Y. where they may be seen. It is now designed to show them at Syracuse at the great cattle show of the State Society, in September next. Col. Sherwood and myself invite the attention of breeders and amateurs to them. A. Stevens.—*New York.*

Culture of Grapes in Ohio.—It is stated in the report of the Agricultural Society for the county of Hamilton, O., that not less than five hundred bushels of Catawba and Isabella grapes, were sold at Cincinnati, during last season, for "table use." The price is three to four dollars per bushel. But the quantity sold for the table is said to have been inconsiderable, compared with the quantity used in the manufacture of wine. The grape culture is profitably carried on in the vicinity of Cincinnati, on the roughest hill-sides, which are of but little value for the ordinary purposes of agriculture.

Gold Fish in Hudson River.—About ten years ago a few gold fish were thrown into Matteawan Creek, which empties into the Hudson near Newburgh, and have so multiplied as to fairly stock the creek and river in that vicinity. These fish, originally from China, are rare in this country.

BLACK SKINNED BARLEY.

Last winter, while on the Atlantic, I promised my fellow-passenger, P. Barry, Esq., that I would send to the Genesee Farmer an account of the discovery, &c., of the Cheltenham Six-rowed Black-skinned Barley. Various circumstances have prevented my doing so until now. I have a beautiful sample now in ear, which I intend to take to the State Fair. I transplanted some, but owing to the dry weather it did not succeed as well as it would otherwise have done; still, from that the promised yield will be larger than the commonality of barley.

Mr. Vaughan, a tobacconist of Cheltenham, England, having by accident discovered three grains of this extraordinary barley, he planted it in January, 1843, and its produce was 3,610 corns or grains.—Mr. Churchill, of the Plough Hotel, of that place, having been favored with a few grains, planted them in December 1843, '44, and '45. The Black Barley, notwithstanding the severe frosts and cold winds, and the extreme drought in part of 1844, flourished and yielded a very extraordinary crop. Mr. C. was induced to drill several acres on the 14th of February, 1846, allowing five pecks to the acre, which he reaped on the 4th of July. Its produce was 52 bushels and 2 pecks per acre; weight, 55½ lbs. per bushel—when hummelled, 58 lbs. The same land was sown with whitestone turnips on the 10th July, which were large, aud fit for the table by the 2d September. Mr. C. drilled in Jan. and February, 1847, several acres, allowing six pecks to the acre; the produce averaged 63 bushels to the acre, and weighed 57½ lbs. to the bushel, before hummeling.* Mr. C. drilled, in October 1847, several acres with and without vetches. He mowed the barley and vetches when in ear, for his cattle and working horses, during April and May; the produce averaged 12 tons, 2 cwt. (27,104 lbs.) per acre, and from its superiority of feed, was a saving of 3 lbs. of beans to each horse per day.—That planted without vetches was harvested on the 10th July, and the land sown with whitestone turnips and fit for sale in September. A small portion of barley was mown in May; the stubble was let remain for a second crop, and was reaped on the 23d August, producing 37 bushels and 2 pecks to the acre.

Mr. Churchill malted 100 bushels and found the vat cast more than any other barley.† When the barley is ground and mixed with wheaten flour, it produces good sweet bread.

It is recommended to be sown in October or November, for green food in the spring, either with or without vetches, and not later than February for harvesting or seed, allowing to good lands about 84 lbs. to the acre, and for middling land, 100 lbs. It is better drilled or dibbled. The straw is very strong, fine and fit for plaiting; all sorts of cattle are very fond of it when cut into chaff. So hardy is the plant that a gentleman in Wolverhampton raised a few corns in his hot-house, and during the severe cold ordered it to be transplanted into the open ground, where it came to great perfection.

Mr. C. says it does better on poor than on highly manured lands. I sowed late in March and April.—I put the grains six inches apart, and found they were much too close. W. M. Beauchamp.—*Skaneateles, N. Y., July,* 1849.

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*An acquaintance of mine planted one peck, and reaped the same season from the same, 46 bushels.

† I do not recommend it for distillation, or in any other way that may augment the curse of drunkenness.

LETTER FROM FAIRFAX CO., VIRGINIA.

Messrs. Editors:—Having recently become a subscriber to the Genesee Farmer, I must say I prefer it to all other agricultural documents that I ever perused. I have shown it to my neighbors around me, and asked them to subscribe. They say that it is published too far off—that the system of farming carried on in New-York will not answer for the soil and climate here. Now I wish to know the reason, for they are unable to give me a satisfactory one.—Will any one of the readers of the Farmer give the reason, if any, why the northern practice of farming will not do in many sections of the south? Having been born and raised in Madison county, New-York, (from which I came to this place about two years ago,) I am satisfied, from my own knowledge, that the southern practice of farming would *not* do at the north.

Nature has done every "needful thing" for this country, while it has been the work of the white man and his slaves to mutilate and destroy. We have many advantages over Western New York. We have Washington and Alexandria, which are better markets for produce than any in Western New York—and the Potomac river, with vessels on her that will take our surplus to any part of the world.

I wish to turn some of the farmers of New-York this way, instead of their going to the west. Land within three miles of Washington varies from $10 to $30 per acre, the price depending upon the quality of soil and location; and in my own neighborhood, which is ten miles from Alexandria and three miles from Mt. Vernon, (on part of the estate formerly owned by Gen. Washington,) land can be purchased at from $5 to $15 per acre. * * *

All this part of Virginia wants, in my humble opinion, is enterprising northern farmers to settle here, and it will become one of the gardens of the world. In the luxurient valley of the Genesee, there is no end to wheat and corn—while the valleys of the Potomac river are grown up to pines and cedars; the planters having left them, the deer and wild turkey have taken possession, and roam unmolested. I long to see the "Old Dominion" stand first, as of right she ought, among her sister States; and northern emigration would soon place her in that proud position.

The soil here is easily improved, and the water good—and in fact there is every inducement that a northern farmer could ask for. Where sown, clover grows luxuriantly, and lime acts well on the soil.—Indeed I see nothing to hinder a northern farmer, with northern enterprise and the northern mode of farming, from doing well here; and I advise all unsettled farmers who wish to locate permanently, to emigrate to Virginia instead of going to the west.

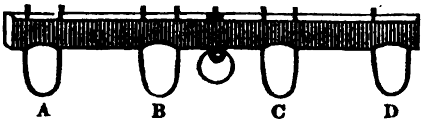
Any one wishing to know more about lands in Fairfax county, may direct their letters to me, and they shall be accommodated. S. N. Wright.—*Accotink, Fairfax Co., Va., May,* 1849.

Remarks.—We publish the above because we think its statements will prove interesting to many of our readers. If the section mentioned possesses "many advantages over Western New York," we see no good reason why it should remain in a wild and uncultivated state. We hope to receive articles from other sections of the south and west, containing facts of general interest to agriculturists—such as soil and climate, staple products, price of land, &c.

BREAKING STEERS.

An Alabama correspondent of the *Southern Cultivator* gives the following plan for breaking steers. It strikes us as being quite practicable. He says:

"Make a yoke four feet longer than usual; give room to put four bows instead of two, as represented in the annexed figure. Hitch a pair of well broke steers, one at each end of the yoke, leaving the two middle bows for your unbroke steers. Now hitch to your cart, and put them at work, all four in the same yoke, and abreast. They may cut some antics at first, but they will soon find it best to obey the word of command. Dont suffer them to be whipped, as is common in breaking mules and oxen. Treat them gently while you have them hitched together, and you can break them with or without lines. You will find this plan to be much better than having a half-dozen negroes about them, beating and thumping, whooping and bawling for a week or two, if you manage them rightly for two or three weeks.—Should a neighbor wish to borrow the gentlest yoke of oxen you have, you would hesitate to say which was the safest. The steers you have thus newly broken would be without tricks."



A D, old steers. | B C, young steers,

* * *

TO THE WOOL GROWERS OF THE UNITED STATES.

A purse of $100 having been offered for the best 25 Merino Ewes, and the best 25 Marino lambs under one year old—by a private gentleman—the exhibition to be at the Fair of the New-York State Agricultural Society, I propose to be a competitor in that exhibition against any and all flocks of Merino sheep that may be brought against me. I give this out, not as a challenge, but simply as a proposition, which shall call forth my brother farmers throughout the length and breadth of the land. My object is to convince myself where the best Merino sheep are—if I have not got them—for I am resolved to improve from the best, whatever may be the cost.—By a fair and manly competition, we may compare the best specimens from the best flocks—and by that means may learn where the best sheep are to be found.

For a series of years, I have spared no pains or expense to possess myself of the best sheep of the pure merino race, that the United states could afford, or to be found in the old world. It remains to be seen whether these efforts have been successful: and to this end I earnestly invite the merino wool-growers throughout the Union to meet me on the show ground at Syracuse, next September, in honorable competition, to compare the best 25 ewes and 25 lambs from our respective flocks, and thus add another most interesting feature to the somewhat National Exhibition which will be made at the New York State Fair. A. L. Bingham.—*Cornwall, Vt., July,* 1849.

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Oak leaves, says Thaer, are not easily decomposed, and contain an astringent matter which is highly injurious to vegetation as long as the leaf remains undecomposed.

THE 'RHUS IN ERBE;' OR HINTS TO VILLAGERS.

[Though many of the following hints are unseasonable at this time, the article will keep quite as well in print as in our pigeon hole—and perchance prove valuable to those who preserve the Farmer.—Ed.]

As more than a *pro rata* portion of the readers of the Farmer live in villages—and as it is a very thankless task, however irrepressible your enthusiasm may be, to write for the benefit of those of the country who only call you a pretender or an empiric—I will now say a few words for the benefit of the villager who delights in growing his own corn and cabbages.

Cabbage Plants.—Never attempt to grow cabbage plants in any thing but a loose vegetable mould—here the roots will grow large and strong, so that when transplanted they never fail to grow with rapidity. I have often heard it said that a cabbage planted by a Dutchwoman was sure to live and thrive. One-half the secret of her success is that her plants have large spongioles; the other half is in the early hoeing they receive at her hands; for vegetable, like animated nature may be improved by female culture.

The Time to Plant.—When a farmer tells you to wait for the new or old of the moon before you sow or plant, don't mind him, unless your faith is as expansive as his own; but plant early if all things are right—and the moon, crazy as she is, will not molest your crop.

Onions.—Few people in Western New York know the true value and culinary office of onions; still fewer know how to grow them aright. If you want early onions, plant the black seed after the summer droughts are over, take them up in November and put them in the cellar—in April, set them out in beds. They will soon mature, and are much better than what are vulgarly called top onions. If you have a few small onions in the ground all winter, they will come forward very early in the spring, and may be eaten as a salad, tops and all. For the main crop of onions, always plant *new* black seed in March or April; the surplus young onions will pay for the thinning and weeding. They may be used in soups and stews, or eaten *en salade*, tops and all.

Indian Corn.—For early green corn, plant a row or two of some early variety, then plant sweet corn in rows 2½ feet apart, once every two weeks, until July; thin the plants to six or eight inches in the row, pull or cut off the suckers, and as the corn begins to ear, cut out barren and diseased stalks. You will then have a supply of green corn from July until October, and sweet corn to cure for winter's use, to boot. Select the largest ears for seed from two or three eared stalks. The soil for corn can hardly be made too rich. Hoe as soon as the plant appears above the surface. Some suppose that when corn is planted early, comes up and turns yellow, it is stunted, and will be overtaken by the thrifty plants of a later growth. No such thing; the early plant is often gaining root when the top is stationary, so that its growth will be much more rapid in the succeeding warm weather, than that of even thrifty later grown plants.

Beans.—Being tender plants, they must be planted later than most other seeds. Pole beans, though not as early as bush beans, are much more palateable in the green state. No man can have any pretension to the character of an epicurean, who says it is too much trouble to pole beans.

Radishes.—Early planted radishes grow so slow that they are injured by worms on a manured soil; a virgin sandy loam is the best for early radishes.—Later in the season they grow so rapidly in a rich soil, that they outstrip the worms.

Cucumbers.—Manure prepares the best soil for cucumbers. Whenever I see a farmer's wife with a barrel of cucumber pickles for sale, I instinctively feel, before I make the inquiry, that the stumps have not yet rotted in her garden. A virgin soil, composed by nature's unerring hand, is best for all the delicate feeders of the whole vegetable kingdom. Corn and roots are gross feeders not easily cloyed.—Potatoes want a moist, cool climate, and moist, rich soil. When potatoes fast for want of due moisture, Indian corn luxuriates.

A WORD ABOUT TREES AND SHRUBS.

Let every villager who takes the Genesee Farmer, read, learn, mark and inwardly digest its Horticultural Department, by P. Barry. He will there find that Mr. B. did not go to England to eat turbot, nor to Paris to hurry through the *Jardin des Plants*, to eat oyster soup at the *Rocher du Concati*. The Yankees who first began to build villages in Western New York, extirpated every tree that the farmer's axe had spared, as though a forest tree was the natural enemy of civilization. Stingy of every inch of ground, their houses were built out flush with the street, so that when the village grew into a city, they might sell the rear at a high price. To copy the worst example of the city, or of the decayed New England town, seemed to be their highest ambition; hence, instead of those indigenous trees, shrubs, flowers and creepers (call them not parasites,) which now adorn the villager's home, little of the kind was to be seen ten years ago, except now and then a starvling exotic in a pot, stuck out on a window sill, or the door step, bringing to mind the little disconsolate flower in Picciola's prison yard.

Great has been the progress of sylvan and floral embellishment in our villages, in the last two or three years, and choice fruit trees and vines begin to abound. Next to our favored climate, many thanks are due to D. Thomas, Downing, Barry, and other late writers on horticulture, for such a rapid consummation. But much still remains to be done. Little money is needed to effect it; all that is necessary to promote such improvements, is some reading, the cultivation of a correct taste, some care and attention; but no more time is required than that which is daily passed in idleness—and what is the labor to him or her who loves nature for herself! S. W.—*Seneca County, N. Y.*, 1849.

THORN HEDGES.

Messrs. Editors:—As you expressed a wish in your last number of the Genesee Farmer, to hear from such of your correspondents as have had any experience in growing hedges, I beg to send you a litte account of my experience on the subject.

Five years ago I procured from the Botanical Gardens of Messrs. A. J. Downing & Co., of Newburgh, N. Y., a quantity of young plants of that variety of thorn called the Newcastle Thorn (*Cratægus Crus-galli*)—a native, as Mr. Downing informed me, of New Jersey, and much better adapted to this climate than the English hawthorn. I planted them a foot apart in a single row, and as they were charged six dollars per thousand, the thorn plants for each rod of hedge cost me only ten cents. When they had grown two years, each thorn was cut down so as to leave only three inches of the stem-above ground.—This had the effect of causing several shoots to spring up from each root: these have grown, and now the hedge presents a vigorous appearance, varying from four feet to six and a half feet high, and it promises to make a very good fence in two or three years from this time. The land on which I planted the hedge varies in quality:—that on which it has attained the height of six feet and a half, is a good mellow loam, but that on which it is only four feet high, is a stiff hard clay. If I plant another hedge, I shall plant the thorns eight inches apart, and previously manure the land.

I think it cannot be doubed that we have several species of thorn indigenous to this country which would under proper management, make admirable hedges; for I believe that, all things considered, nothing will be found comparable to the thorn for hedgor farm fences, whether we consider its hardiness and durability, its habit of growing in such close proximity, one to another, as to constitute, from its formidable and numerous spines, an impenetrable barrier, its adaptation to the climate of all the northern and middle states, and perhaps to some of those in the south, and its ease of propagation by seed, and consequent cheapness. Dr. Beck, in his Botany of the Northern and Middle States, enumerates eight distinct species of native thorns. I have noticed five or six varieties of the thorn scattered over my own farm, several of which would apparently, from their low, bushy growth, make excellent hedges: and it is to be hoped that ere long our enterprising nurserymen will so test all the native sorts of thorn as to be able to point out such kinds as are best adapted to the purpose of making good permanent farm fences. I may add that although mice are numerous in my field, yet they have not attacked the Newcastle thorn planted by me. This is not the case with the English hawthorn (*Cratægus Oxycantha*) planted at the distance of a few miles, where, during the winter, the mice frequently girdle the plants and do much injury. H. R.—*Varick, Seneca Co., N. Y., June,* 1849.

WOOL GROWING.—LARGE FLEECES, &c.

Messrs. Editors:—In looking over the old numbers of your valuable paper, I find several statements from those engaged in the growing of wool. My attention was particularly drawn to the statement some gave of the great weight of fleece from their Merinos. Now, sir, my sheep quite come up to some of the Merino flocks, they being of the Merino grade. I have at present 118, including old and young—38 lambs. The fall of '46, I purchased, at the State fair at Auburn, of Reed Burritt, of Burdett, Tompkins county, a Merino buck lamb, one of the five that took the first premium at the said fair. The aggregate weight of his fleeces is 23½ lbs. His first fleece weighed 7 lbs., second 7¾ lbs., third 8½. I have 70 of his stock, including 28 lambs. Two 2 yearold ewes, with lambs by their sides, clipped 12½ lbs. of well washed wool. My 54 old sheep clipped 4 lbs. 3 oz. per fleece; forty of them are ewes; yearlings average four lbs. per head.

Last fall, at the State Fair at Buffalo, I purchased a yearling Merino buck of J. D. Patterson, of Westfield, Chautauque county. He is a noble sheep, good sire, well formed and well wooled; his fleece weighed 8¾ lbs. well washed. I have ten lambs of his stock, which bid fair to make the right kind of sheep.

I have brought my flock up to what they are, without the expense of purchasing high priced sheep at home or abroad; indeed, I have purchased none but the two above mentioned. The improvement has been made by a proper selectien of bucks, changing them every or every other year, and breeding from my best ewes. I thought if I could get up a flock of sheep that would average 4 lbs. per fleece, I would be satified—but my ambition goes beyond that. I anticipate getting up a flock that all over one year old will average 5 lbs., and lambs 4½ lbs. I feed no grain to my old sheep; I give a few oats in the sheaf to my lambs, during the first four weeks of feeding hay.

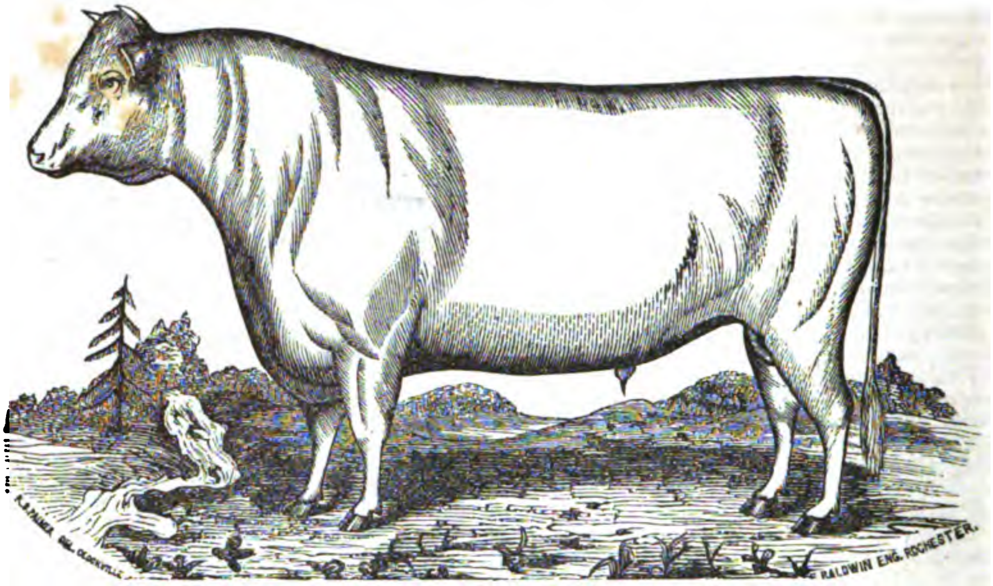
If any one who may read this article has a flock of Merinos that come to the last above figured, they will much oblige one of the many readers of your paper by making it public through its pages. Samuel Embree.—*Milo, Yates Co., N. Y., June,* 1849.

A CHEAP BEE-HIVE.

Messrs. Editors:—In getting up the plan of a bee-hive to meet the wants of the farmer and mechanic, there are several things that should be well understood—the object being profit and economy.—A large hive seldom swarms much after the first season of swarming, if they have a plenty of room for their increase. I have always found those hives the most profitable that hold only what honey it requires to winter a midling sized swarm, and comb enough to raise their young in. I have used board, tub and straw hives, and have examined most of the patent hives that have been offered in this vicinity.

Thre years ago I got up a hive that I think is the nearest what the farmer wants, of any I have ever seen. I wil endeavor to describe how it is made.—I select two suitable boards, one inch thick—one of them thirteen, and the other fifteen inches wide. I saw two pieces from the one 13 inches wide, for the front and back part of the hive, twenty inches long; then two more fifteen inches wide, the same length; then I measure off 10¾ inches on one side, and 11 on the other side. Strike lines across, and saw them into by them, to make the sides of the main hive and sliding doors. For the chamber to set the boxes in, take the two pieces 11 inches long, nail them to the boards 13 inches wide, the longest sides out; then a square piece from the board 13 inches wide, makes the floor between the main hive and chamber. From the edges next to the front and back boards, I cut out a strip two or three inches long, sufficient for the bees to pass from the main hive to the boxes. I then nail the floor firmly, level with the longest edges of the side boards. A board 17 inches square makes the top of the hive, with some gimlet holes to slip nails into to hold the sliding doors in their place, completes the hive, except four sticks through the main hive, two each way, to support the comb.

To make boxes, select good house siding, wide enough to use six by eight window-glass for the ends; plain them to ⅝ of an inch thick; make the boxes 12½ inches long; cut the edges of two of the boards to make a place for the bees to enter it from the main hive; nail them together with inch brads. Two boxes will stand in the chamber, and hold 16 lbs. each, when well filled, and seldom any thing in them but the clear honey and white comb. Alvin Wilcox.—*West Bloomfield, N. Y., April,* 1849.



IMPROVED SHORT-HORN BULL "BUENA VISTA,"
Owned by S. P Chapman, of Clockvlle, Madison County, New York.

Though we never "bred or owned a short-horn," we *do* like to see and handle them—and when we can not have that privilege, we e'en like to look upon such a "counterfeit presentment" as the portrait here given. Indeed, we admire a beautiful, well formed animal of any breed, and have little sympathy with those specimens of the *genus homo,* who can find nothing worth seeing, at a "cattle-show."

We congratulate Mr. Chapman upon the possession of so perfect and noble an animal as the one above represented; and we are assured that "Buena Vista" is equally as good, if not "better looking," than the engraving. His pedigree shows him to be among the choicest of the breed to which he belongs, and we are confident that while under the care and management of his present owner, his good qualities will be fully retained. Mr. Chapman seems determined to keep pace with the improvements of the age, and we consider his example well worthy of imitation by other practical farmers and breeders.—The success which has thus far attended his efforts to improve the quality and augment the produce of his stock, (both sheep and cattle,) proves that he understands the subject—and we presume he fully comprehends its importance. We trust his labors will be adequately rewarded.

We annex the pedigree of "Buena Vista:"—

Pedigree.—White—bred by George Vail, of Troy, N. Y.; calved 10th April, 1845. Got by Meteor, 104, [bred by Mr. Vail, from an imported cow and bull, bred by Thomas Bates, Esq., of Yorkshire, England,] out of Queen II., by Charles Henry Hall's Meteor*—Queen I., by Monarch, 105, [bred by Mr. Hall,]—Young Princess, by Regent, [imported by Mr. Hall in 1821,—Old Princess, [imported by Edward Prince in 1825, bred by Robert Colling,] by Lancaster, 360,—Golden Pippin by North Star, 458, —by Favorite, 252,—by Hubback, 319.

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The Short-Horns.—In his "Compend of American Agriculture," Mr. Allen says:—

"The Short-horns or Durhams are decidedly the most showy and taking among the cattle species.—They are of all colors between a full deep red, and a pure creamy white; but generally have both intermixed in larger or smaller patches, or intimately blended in a beautiful roan. Black, brown, or brindle are not recognized among pure bred short-horns. Their form is well spread, symmetrical and imposing, and capable of sustaining a large weight of valuable carcass. The horn was originally branching, and turned upward, but now frequently has a downward tency, with the tips pointing towards each other. They are light and comparatively short, clear, highly polished and waxy. The head is finely formed, with a longer face, but not so fine a muzzle as the Devon. The neck is delicately formed without dewlap; the brisket projecting, and the great depth and width of the chest giving short, well spread fore legs. The crops are good; back and loin broad and flat; ribs projecting; deep flank and twist; tail well set up, strong at the roots and tapering. They have a thick covering of soft hair, and are mellow to the touch, technically termed *handling well.* They mature early and rapidly for the quantity of food consumed, yielding largely of good beef with little offal. As a breed, they are excellent milkers, though some families of short-horns surpass others in this quality.—The short-horns are assigned a high antiquity by the oldest breeders in the counties of Durham and Yorkshire, England, the place of their origin, and for a long time, of their almost exclusive breeding."

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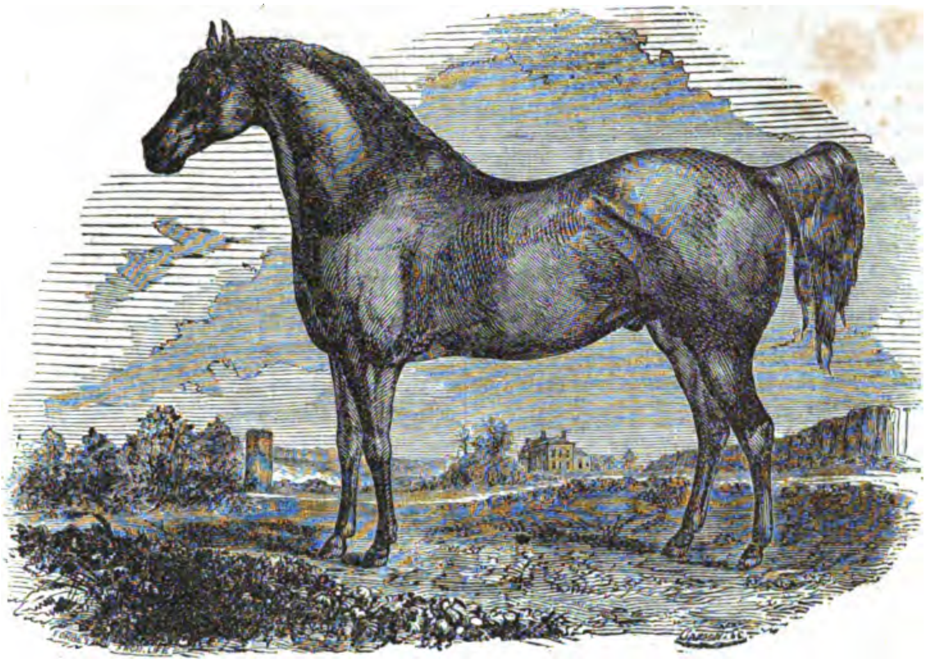
* Mr. Hall's Meteor was sired by Harlem Comet, 71, by Wye Comet, [imported by Gov. Lloyd, of Maryland,] dam Lily by Regent, [imported by Mr. Hall, in 1821,]—Blanche [imported by Admiral Sir Isaac Coffin, in 1823,] by a son of Comet, 319. The *dam* of Meteor, Snow-drop, by imported Regent; g. d., Old Snow-drop, got in England, out of Blanche, [imported.]



THE STALLION "MORGAN HUNTER."

[For the above beautiful engraving we are indebted to the owners of the animal it portrays. As we have never seen "Morgan Hunter," we are unable to speak of him from personal knowledge — and therefore copy the following notice from the July number of *The Cultivator:*]

It has been well remarked that, though a picture may convey too favorable an idea of a defective animal, yet it is impossible to portray all the excellencies of a good one. Making due allowances for the latter difficulty, the above figure may be concondered a correct likeness of the horse from which it was taken.

"Morgan Hunter" is six years old; was bred, as we are informed, by Mr. Exwell, of Springfield, Vt.; was got by Gifford Morgan, dam by the same horse. He was sold by F. A. Weir, of Walpole, N. H., in May last, to Messrs. Hackley & Gilbert, of East Hamilton, Madison County, N. Y., and stands the present season at the stable of S. A. Gilbert, in that town. He is a capital specimen of the Morgan family of horses. In his general form, he possesses, in a remarkable degree, what Youatt lays down as the most important requisite in a stallion—compactness—"as much goodness and strength as possible, condensed in a little space." His head is fine, and his eye large and brilliant; his chest capacious, barrel round, loin very broad, back short, quarters long and muscular, flanks deep and full, limbs short-jointed, flat and sinewy. In temper and spirit he exhibits the intelligence and docility which characterize most of his near relatives. Like the high-mettled Arabian, he unites the playfulness and good humor of a pet lamb, with the courage and power of the war-horse—whose "neck is clothed with thunder,"—"who rejoiceth in his strength," and "mocketh at fear"

The history of the Morgan horses has been fully given in previous pages of The Cultivator. Some people, however, who have not fully investigated the matter, seem to entertain the idea, that they originated with a cross of the French or Canadian horse. We have never seen the least evidence that the original, or as he is called the Justin Morgan horse, possessed any of this blood; and of the four stallions which were kept of his get, we believe the Bulrush or Chelsea Morgan, was the only one that inherited any French blood through the dam.

We notice various advertisements and cuts of horses, as "Morgans," in the papers of the different parts of the country. A comparison of those descriptions and their originals, with the cut at the head of this article, may serve, in some degree, to show whether the animals truly represent the stock whose name they bear, or are only counterfeits.

Instinct of Plants.—Hoare, in his treatise on the vine, gives a striking exemplification of the instinct of plants. A bone was placed in the strong, dry clay of a vine border. The vine sent out a leading, or tap root, directly through the clay to the bone. In its passage through the clay the main root threw out fibres, but when it reached the bone it entirely covered it by degrees with the most delicate and minute fibres, like lace, each one sucking at a pore in the bone; like a litter of pigs at their dam as she lies down on the sunny side of the farm-yard. On this luscious morsel of a marrow bone would the vine continue to feed as long as any nutriment remained to be extracted. What wonderful analogies there are running through the various forms of animal and vegetable creation, to stimulate curiosity, to gratify research, and finally, to lead our contemplations from nature, in a feeling of reverence, "up to nature's God."

As to the vine spoken of by Hoare, it is worthy of remark that the root went no further than the bone.

MAKING AND PRESERVING BUTTER.

The following article was commmunicated to the Farmer's Monthly Visitor, by one of the sisters of the United Society of Shakers at Canterbury, N. H.—The excellent economy of this Society gives an importance to their recommendations:—

"The pans or other vessels in which the milk is to be set, should be made perfectly sweet by scalding, previous to putting the milk into them. A room in a basement story, where the air will circulate freely, is preferable to a cellar for setting milk; forty-eight hours is a sufficient length of time to raise cream for making butter to keep through the winter season.

"After this cream is taken off, the milk may stand the same length of time, but the cream that rises after the first forty-eight hours, will uot make butter so palateable as the first which rises, and should be churned separate.

"As soon as the cream is taken from the milk, it should be put into a tin pail, and set into a kettle of scalding water, taking care to stir the cream after, otherwise it will turn oily at the top. It should remain in the kettle till the cream is scalding hot, being careful to place it in a tub of cold water immediately. Stir it often until it is nearly or quite cold: if it remains long after hot, it will be injured much It will be necesary to change the water once or twice before the cream can be perfectly cold. It may then be kept three or four days without injury. After churning, the buttermilk should be partially worked out; then add one and one-half ounce of salt to one pound of butter.

"It may then be covered tight and stand till the following day; then work it over again, taking every care to work out all particles of buttermilk, which will prevent the butter from growing rancid by age. It may then be formed into cakes, or packed solid in a cask, which should be perfectly sweet and well dried.

"The inside should be sprinkled with a little fine salt. After the cask is filled, dip a cloth in melted butter, and spread it snugly over the top—cover it with fine salt, and fasten up the cask sufficiently tight to keep out the air: it should then be set in a cool place, to remain through the winter.

"A cask made of red oak staves is preferable to any other, for preserving the original sweetness of butter. It will add to the flavor of butter to work in a little sugar at the last working over—say a tablespoonful to every four or five pounds of butter."

A SUGGESTION FOR AGRICULTURAL CLUBS.

The "New York Columbian Farmer" suggests what is, one might suppose, not only wise, but very practicable for all who have the self-command and resolution to *do any thing* for improvement in their line of business. It says:

Let each member of the club procure a good sized blank book; commence, say in the spring; write down all matters which relate to the operations of the farm, viz.: number of acres, the soil, manner of tillage, quantity and kind of manure; the time of seeding of all kinds of grain and vegetables, quantity of seed per acre; the situation of the land, as to wet or dry; making suitable entries during the season, as to the weather, the growth of crops, whether doing well or not, and the probable cause; the time of harvesting, yield per acre; if good or poor, the probable cause; the time of selling, the price, high or low. A memorandum somewhat similar as to the stock; the disease with which they are attacked, if any, the remedy used, and the effect. Let an exact account be kept of the outgoes and incomes, and a balance be struck at the end of each year; taking special pains through the year to ascertain causes and their effects; and be not afraid of writing too much. By this course they would soon acquire the habit of putting their thoughts on paper in a systematic way. At the end of each year, these papers could be presented to the club, and examined by a committee; and all matters worth remembering, put into a condensed report, and recorded. By this course, a comparison could be made between the different systems practiced, and the best could be adopted. By this it is believed every important improvement would soon become general; errors would be detected and abandoned.

PASTERNS OF THE HORSE.

The following sensible remarks, on the form of the pasterns, are copied from Youatt's work, "*The Horse.*"

"In proportion to the obliquity or slanting of the pastern, will be the stress on the fetlock-joint, and, therefore, the liability of that joint to injury and strain; and also the liability to 'sprain of the back sinews,' from the increased action of the flexor tendons; and likewise to injuries of the pastern-joints, for the ligaments will be weak in proportion to their length. The long and slanting pastern is an excellency in the racehorse, from the springiness of action, and greater extent of stride by which it is accompanied. A less degree of it is necessary in the hunter, who is to unite continuance of exertion with ease of pace, and who, in his leaps, requires almost as much springiness as the racehorse; but for the wear and tear of the hackney, a still less degree of obliquity should be found. There should be sufficient to give pleasantness of going, but not enough to endanger contiuuance and strength. Experience among horses will alone point out the most advantageous direction of the pastern, for the purpose required; but the slightest observation will prove the necessity of considerable variety in the structure of this part. Let the reader imagine the heavy dray horse, with his short and upright pasterns, contending in the race; or the race-horce with his long and weak pasterns, endeavoring to move some heavy weight. The concussion is little in a cart-horse, because his movements are slow, and therefore the upright and strong pastern is given to him, which he can force into the ground, and on which he can throw the whole of his immense weight."

Guano.—The most economical application of guano is directly under or upon the seed where the roots will be sure to find it. It should be covered with earth, and slightly separated from the seed. Sowing broadcast, in damp weather, upon the growing grasses or grain, is a good mode of application, but it should first be intimately mixed with several times its bulk of garden mold or well-rotted peat, swamp muck, and some plaster.

Save the Urine.—The urine from cattle is worth as much as the solid droppings. Any farmer can easily secure the whole, both in summer and winter, by having a bed of turf or vegetable matter deep enough to catch and retain the liquid. The watery portion soon evaporates, while the solid matter, amounting to about 12 per cent., is incorporated with the turf, and held till needed for use.

Spirit of the Agricultural Press.

New Mode of Building.—A small house may be built in the following manner, with a saving of expense, wherever lumber is as plenty and as cheap as in this city, and where planing can be done by machinery: Take two inch plank, plane them on one side, and tongue and groove them. Provide good sills—and erect the building by setting the plank upright, and battening the joints with strips of half-inch stuff—the strips two inches wide. This forms the outside wall. Furr out on the inside, with half-inch stuff, and lath to that. The half-inch furring gives sufficient room for the plastering to clinch, yet leaves the space too narrow for mice. For small one story houses, this is a very pretty mode of building; cheaper than by studs and clapboards, and in many respects better. Several such houses have been built in this city, and give good satisfaction.—*Prairie Farmer*.

Smoking Potatoes for the Rot.—A correspondent of the *Cultivator*, writing from Green Bay, Wis., says:

"I have been informed by a gentleman of my acquaintance, that he stopped his potatoes from rotting by smoking them. After the potatoes were dug and placed in the cellar, (an out door cellar,) he built a smoke and continued it eight or ten days, when affected part dried up, and the rest of the potatoe remained sound and good through the winter. The remedy was discovered by placing fire in an unfinished cellar. to prevent the vegetables from freezing—immediately after which it was found that the potatoes had stopped rotting. He says he has tried the experiment for two or three years past and has never known it to fail of arresting the disease immediately."

Fowls.—It is a common error to feed young fowls immediately after being hatched. Any person who has examined eggs in the various stages of incubation, sees at once the folly of this practice; for the last process, before leaving the shell, is the absorption of a good portion of matter, by the almost perfect fowl, which serves as nutriment; so that the young fowls, like bees which leave the hive in swarming, have full stomachs to sustain them a day or two; hence, in both cases, that quietness and good humor that generally prevail.

From this wise provision of nature, the chick that first hatches is supported until the last of the brood is ready to leave the shell, which is frequently twenty-four hours later. —*N. E. Farmer*.

To Have Fine Mutton.—The sheep, as soon as killed, should be disemboweled. It is the neglect to remove the entrails at once, and not the meat being touched by the wool, which imparts to it that strong mutton taste. The reason of this is, that the warmth of the body, carried off by the loss of blood, is for a time supplied from the warmth of the bowels, and thus the objectionable taste is created.—*Ib.*

Arabian Cattle Introduced.—Lieut. Lynch, of the late Dead Sea Exploring Expedition, brought home a bull and calf of the Khaisis breed of Arabian cattle, and presented them to the State of Virginia. By a resolution of the Legislature they are transferred to Col. James Castleman, of Clark county, with a view to the propagation of the breed. They are said to be very beautiful animals, with limbs as delicate as those of the gazelle, yet strong and well set.—When full grown they stand 7 feet high, and the cows are said to yield milk abundantly. The pair were exhibited in Washington a few days, and much admired.

Suspension of Land Sales.—The Commissioner of the Land Office gives notice that the sales directed by the President of the States, dated 27th February, 1849, to be held at the Land Office at Saulte St. Marie, on the fourth and eighteenth day of June, and third day of September next, will be suspended, until the United States Geologists shall have fully closed up their operations and surveys, and designated the mineral from the agricultural lands, of which due notice will be given.

New Cure for Bots.—Give the horse some molasses and milk, then put about a half a pound of tea in one quart of water, and draw it as you would for the table, and when partly cool, give it to him, and it will soon relieve him.—*Prairie Farmer*.

New Gate.—A Patent has been issued at Washington for an improvement in the way of opening gates, by which the inventor proposes to "turn them up vertically by a parallel movement of the rails, instead of swinging each way, as in the ordinary manner."

Power of the Soil to Absorb Odors.—It is well known that onions, if buried in the earth for a few days previous to being cooked, will have lost much of their rank flavor.—Wild ducks, which are often too fishy in flavor to be good, may be rendered much more palatable by being wrapped in absorbent paper and buried in the ground for a few hours.—Dried codfish loses much of its austerity of flavor (if we may coin a term) by similar treatment. During the plague in Europe, clothing was often buried for a time, to disinfect it. This absorbent property of the soil is due to the presence of carbonacous matters; for clean sea beach sand will produce no such results, while pulverized charcoal will act with much greater energy than common soil. On this principle, animal matter coated with unleached ashes, and then buried in pulverulent peat or muck, will not only decompose without giving off offensive odors, but the muck will also, by absorbing the resulting gasses arising from decomposition, be rendered highly valuable as a fertilizer. Dr. Dana says that a dead horse, if cut in pieces and treated as above, will render twenty loads of muck equal in quality to the best stable manure.

A Nut for the Curious.—**Lord Lindsay**, in his travels, writes, that while wandering amid the pyramids of Egypt, he stumbled on a mummy, proved by its hyeroglyphics, to be at least two thousand years of age. In examining the mummy, after it was unwrapped, he found in one of its enclosed hands hands a tuberous or bulbus root. He was interested in the question how long vegetable life could last, and he, therefore, took that tuberous root from the mummy's hand, planted it in a sunny soil, allowed the rains and dews of heaven to descend upon it, and in the course of a few weeks, to his astonishment and joy, the root burst forth, and bloomed into a beautiful dahlia.

American Oranges.—The Mobile Herald says that since the destructive hurricane in Cuba a few years ago. the Mobile fruit market had been supplied chiefly with Creole oranges now raised in that neighborhood, Pascagoula, and on the coast, near New Orleans. These oranges are generally larger than those raised in the neighborhood of Havana, and much superior in flavor. The Herald contends that a number of locations might be selected on the bay and neighboring islands, where the orange would thrive admirably, and scarcely ever be injured by frost. It instances the case of a person who realizes from 800 to $1,000 annually, from about 30 orange trees cultivated in a garden near that city.

Advice for Summer.—Major Noah says: "Don't gormandize. We hate a glutton at all times, but especially in summer. It is monstrous to see men, when the mercury is up to 90, cram a pound of fat meat down their throats. Don't you know that animal food increases the bile? Eat sparingly, and be sure and masticate well what you eat. Don't bolt your food like an anaconda. Take exercise in early morning. Ah! what fools we are to sweat in bed, when the cool breezes of the morning invite us forth, and the birds, and the dew, and the streams are murmuring, in their own quiet way, pleasant music, which arouses a kindred melody in the soul.

"Be good natured. Don't get into an angry discussion on politics or religion. There will be time enough to talk the former over when the weather becomes cooler, and as for the latter, the less you quarrel about it the better. Religion is a good thing; but when you fight in its name, you show yourself ignorant of its principles, and unswayed by its influence. Bathe often, three times a week, every day. The expense is nothing to the benefits derived. If you would enjoy good health, have a clear, a sweet stomach, a cheerful disposition, put your carcasses under the water every day, and when you emerge use the brush vigorously for five minutes. There is nothing like the pure bracing water.—We never dip beneath its surface without thanking God for having placed such a health-promoting element within our reach."

How to Prevent the Cholera.—A correspondent of the Journal of Commerce says that a town in Tennessee has entirely escaped the scourge of the cholera the past winter, not a case of it having occurred there, notwithstanding every town in the vicinity suffered from it severely. This has been attributed, and no doubt correctly, to the free use of quick lime, fresh from the kilns, which was scattered through the gutters. cellars, privies, and yards. Its disinfecting properties seizing with avidity on all impure and deleterious gasses are well known, and where plentifully used will, no doubt, under ordinary circumstances of prudence and cleanliness, preserve the health of any cities and villages in the United States.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

NEW SEEDLING STRAWBERRIES.—PRODUCTION OF SEEDLINGS.

PUBLIC attention is so generally turned to fruit culture, that great improvements must be made in every department. The *Strawberry*, the most important of all the small fruits, will undoubtedly, in common with other things, undergo a great improvement. A few years ago the Messrs. HOVEY, of Boston, produced two seedlings of great merit; and they were disseminated with astonishing rapidity. In three or four years from the time they were first announced for sale, hardly a respectable garden in the country, but had its *Hovey's Seedling* and "*Boston Pine.*" Next Mr. Burr, of Columbus, Ohio, is fortunate in obtaining from seed a few fine sorts. We see them at once spread over the country, so that in two years from the time of sending out, they are reported on the tables of all the Horticultural Societies in the country. Meantime, large numbers of European Sorts, of high character, are imported and tested. This shows the estimation in which the strawberry is held, and the degree off attention bestowed upon it by American cultivators. This is not surprising, for the healthiness and delicacy of this fruit render it the favorite of all ages, classes, and conditions of people who can get it.

It is needless for us to say that among all the foreign sorts, not one has yet been found well adapted for marketing. The *Swainstone*, the *British Queen*, *Black Prince*, &c., are large and delicious, but the crops are small and uncertain, and they are entitled to a place *only* in the collection of amateurs, and there they ought to be.

The large *Early Scarlet* in Western New York, is yet the staple sort for market. It, however, must, soon give place, we think, to better sorts. A few years ago, we thought of trying our luck in raising seedlings. We had an idea that something might be produced as prolific as the Early Scarlet, and with larger size, and better flavor. We took seed from "*Hovey,s Seedling*," *Ross' Phœnix*, *Large Early Scarlet*, *Duke of Kent* and *Austrian Scarlet*, and *Boston Pine*, that were all grown in adjoining beds, and from this seed we raised in 1847, several thousand plants. These we put out in beds, and in 1848 they bore, and we selected some twenty-four plants that we considered well worthy another trial. The crop of fruit on some of them was enormous, and the plants combined with this great vigor and hardiness. We planted these 24 selected plants out and again this year they have borne—some of them so profusely as not to be equalled by any we have seen this season. This has been the opinion, too, of others who have seen them. They received no extra culture; indeed, the culture was not so good as it ought to have been. The ground was an old rasberry bed, worn out. The plants were dug up on the first of July, last year, and the ground manured and spaded—and on the 3d or 4th the strawberry plants were planted in it, and since then have only been kept clean of weeds. Every runner has been allowed to grow so that the ground around the plants has not been stirred. We have selected five varieties that we believe will rank at least among the best and most prolific varieties now grown. [See the report of the Committee, who have examined their merits carefully.] We are continuing our experiments. We have immense numbers of seedlings coming in, and we venture to anticipate something fine.

We are glad to learn that others are engaging in similar experiments.* There is something so delightful, so exciting about the raising of seedlings, whether of fruits or flowers, that one finds ample compensation, if they succeed in raising one good thing among a thousand poor ones. Last year we raised some of the finest verbenas now cultivated, among them two or three real novelties—striped and clouded. We also obtained some very pretty Petunias, equal to any of the best English sorts we have seen. At this moment we have in full bloom a bed of seedling picatees that are scattering their odor over all the garden, and delight all who see them, with their gay and varied colors. Of pansies we are always getting something new and pretty from seed. The following article responds so faithfully to our own feelings on this subject, that we cannot refrain from hanging it to our own remarks:

THE GRATIFCATION DERIVED FROM RAISING SEEDLINGS.—All nature has an inclination to vary; even the acorn from the evergreen oak, which we shall take for our first subject, yields us fifty differently formed leaves, although we could see no difference in the seed. If we sow a thousand acorns from the evergreen oak, we shall not have two plants with foliage strictly alike, but many will differ so much that they far more nearly resemble holly than oak; we have seen a number of varieties so striking, that we have determined on werking each distinctly and separately and so perpetuating about ten of the oddest looking leaves we ever saw. There is hardly any thing more gratifying, certainly nothing more interesting, than the sowing of seeds, if we but take the pains to examine the results.—We have seen a seedling oak with round leaves, with prickles all around, like those of the holly, but in form, the leaf is as unlike both oak and holly as if it were a separate genus. In a quantity of seedling berberries there is a most extraordinary diversity of form and color. In a patch of laburnums some of the racemes of flowers are as long again as others; in half a dozen walnut trees not two bear nuts alike; and if we were to watch any thing that comes from seed, we should often discover a thing worth saving but which, for want of observation, is lost altogether.—Take care of things raised from seed; we once picked out half a dozen Rhododendrons, from a lot of seedling Catawbiense, and they proved to be worth grafting, and are now figuring among the most popular by some half-dozen names. We have not alluded to seed raised by crossing or artificial impregnation, but raised in the ordinary way; and if that will, as we know it will, yield great variety occasionally, how much more would seed do so when saved from particular sorts associated together for the purpose, and those of so opposite a character as to present every charm! We wish all who sow seed would look more to the result.

PROGRESS OF FRUIT CULTURE.

WE are happy ot note the steady and rapid increase of choice fruits in this vicinity. Last year we had the pleasure of reporting great improvement in Strawberry culture, and this year has brought that branch of cultivation to a state of advancement that compares favorably with any other part of the country.

The varieties recently produced by Mr. BURR, of Columbus, Ohio, have been produced in large quantities by M. G. WARNER, Esq., who has from the beginning, cultivated these varieties with great success. He is well satisfied with the results of another year's experience. The **New Pine** has borne large crops, and has proved of delicious flavor—ranking No. 1 for a table fruit. The size has not been as large as last year's, on account of the condition of the beds. The plants had grown together, covering the whole ground, and the foliage was very dense. The Rival Hudson, Mr. W. thinks much of—being very prolific, fine and excellent for preserving. He has also had a fair crop of Hovey's Seedling—his specimens of this variety have surpassed any other here. Mr. Warner's crop was all sold at about 18¾ cents per quart.

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* We noticed, a few days ago, a bed of strawberry seeds just planted by Messrs. Bissell, Hooker & Sloane.

Messrs. **Bissell, Hooker & Sloane** have also supplied the market largely. In a little over two weeks they have sold about two hundred bushels of fruit, notwithstanding the cautions of the "Board of Health." Their varieties for marketing were *Hovey's Seedling, CrimsonCone, and Large Early Scarlet*—the latter being their standard sort, according to their experience, by far the most profitable. From a bed measuring 119 rods of ground, they have picked upwards of 109 bushels of this fruit. They have also produced fine specimens of *Black Prince, Myatt's British Queen*, and some other varieties.—Messrs. B., H. & S. have also erected within the past year, a vinery 56 by 24 feet, with borders 20 feet wide and three feet deep, made in a thorough manner. Their vines are thriving admirably, and will next season be in a fruiting condition. Mr. **Bissell** has also a fine garden of dwarf Pears, designed to supply the market with choice fruit. We hope such instances of successful enterprise will induce others to turn their attention to these branches of culture, that have heretofore been overlooked in this region.

THE PLUMBAGO LARPENTÆ.

(LADY LARPENT'S LEADWORT, OR PLUMBAGO.)

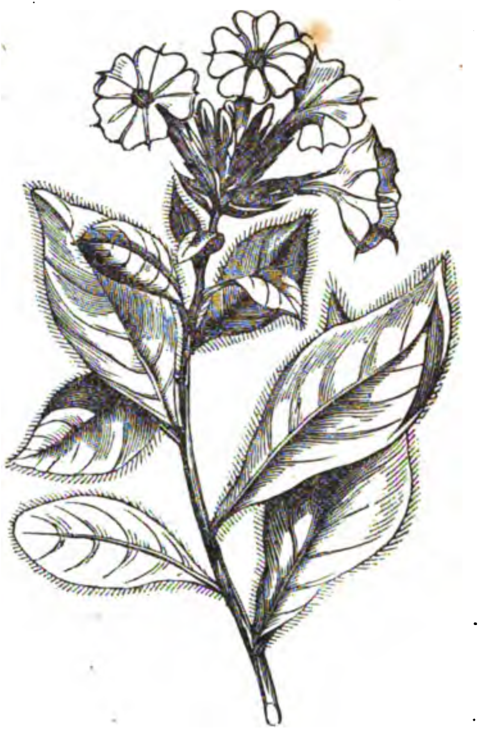
In 1846 Mr. **Fortune** found this beautiful plant on the ruined ramparts of Shanghai, in China. In July 1847 it was exhibited in bloom before the London Horticultural Society.

All who have seen it describe it as one of the most charming blue flowering plants now known for bedding out in masses, as we do the verbena, petunia, &c. The *Plumbago capensis* is a well known useful plant for bedding out, but it seems to be the opinion of cultivators that this new one entirely supersedes it. It will undoubtedly prove much better adapted to our climate, and answer bedding purposes better from its compact and bushy habit. It is described as having obovate pointed leaves, finely serrated aud fringed with hairs on the margin, as will be seen by the cut. The flowers are produced in terminal clusters, and are clear deep blue, or intense violet color, with a tint of red in the throat, increased by cuttings of the young wood. An idea may be formed of the profusion of its blossoms from the fact that a single plant has borne 4000 blossoms.

The London Horticultural Magazine says:—

"The Plumbagos flourish in any light, porous, turfy soil, but in none better than where sandy loam preponderates.—The present species must be particularly well drained, and not too freely watered. It may be propagated by cuttings planted in sand, and set in a mild hot-bed: these cuttings should, as in the case of other bedding plants, be planted in the latter part of the summer, and kept over the winter in greenhouses or dry frames, until the following spring.

For pot culture it will doubtless prove a very desirable subject. It must, in this case, be regularly shifted into pots containing a compost in which turfy loam preponderates, not using very large pots, and having these drained in an efficient manner. The plants should, while young, be well stopped back, the point of the shoots being removed as soon as practicable, after they reach from two to three inches long. This is to be continued until a good round head of branches is produced, and the plant should then be allowed to grow on for flowering. An allied kind, *P. capensis*, forms a very elegant plant under good management, and becomes a really desirable object for greenhouse decoration, from the distinct and soft pale blue color of its blossoms; this species being, moreover, of rather straggling habit, may be used as a semi-climber; trained against the upright pillars of a conservatory, in situations pretty well exposed to light, and where its roots are in a healthy medium, it becomes very ornamental. Whether or not the new species will assume any of this habit, we know not; but the plant which appeared at one of the metropolitan exhibitions certainly indicated a more compact and bushy habit. Of course as a pot plant, it must be very carefully watered."



Grafting the Grape.—Can cultivated grapes be grafted or inocculated (or both) into wild grape stocks with success?—and if so, at what seasons of the year? R. B. **Warren.**—*Alabama, N. Y.*, 1849.

The grape may be grafted successfully at the season when other grafting is performed, or sooner. A correspondent of the Ohio Cultivator states that he had great success in grafting in February. The grafts were inserted in the stock three inches below the surface of the ground, and no plaster used, but the earth simply pressed around them.—Grafting by approach, that is if the stock or graft be in a pot, may be done now. Budding we have not practiced, but presume it had better be done in the spring.

The Melon Apple.—A friend has placed on our desk to-day, (July 12,) two specimens of this apple, as fresh, juicy and sound as they were in December last. We have never before known the excellent keeping qualities of this fruit, till this season. It has been described as an October or November fruit, but the fact is, it keeps nearly as well as the Northern Spy. It is so delicious in the winter, however, that very few are disposed to test its keeping qualities.

THE NEW YORK AND BUFFALO FRUIT CONVENTIONS.

From the various articles which have appeared in the Horticultural and other periodicals, it appears quite evident there is a very erroneous opinion abroad, as to the friendly attitude of these two conventions. From individual knowledge of both, we believe the assertion may be safely made, that not five persons, having any connection with either, desire any rivalry, or wish to assume any hostile attitude toward the other.

Both conventions had been proposed some months previous to their actual session, and both were very interesting and important bodies. The writer, who took a much more active past in that at Buffalo, will not, from this fact, be accused of partiality, when he states that the New York Convention embraced by far the largest number of eminent pomologists, and for this alone, must, by common consent, be regarded as the leading pomological organization in America. It is but justice to those who took an active part in the convention at Buffalo, to state that nearly if not quite all of them so regard the New York organization. And with this general feeling pervading all parties, I cannot but believe that the approaching convention at Syracuse, will adopt such a course as cannot be construed into an assumption of any hostile bearing.

A single explanation as to the propriety of two distinct organizations, one each for the east and the west, as supposed to be demanded by the difference of soil, climate and locality. The following facts would indicate that the difference is overrated. Of the twenty seven varieties of the apple, recommended by the Ohio Fruit Convention as *first rate* for their region, all except *four* are cultivated in the Eastern States, where one or two even, of these four originated. As for the Buffalo Convention being peculiarly adapted for the west, as has been intimated, it may be stated that by far the best and most extensive collection of pears exhibited there, came from Robert Manning, Salem, Massachusetts; the most extensive colleetion of plums, altogether so, was from Charles Hamilton, Orange county, N. Y.; and the largest collection of apples, I think, was from Charles Downing, of Newburgh, N. Y. It will hardly do, yet, for either section to cut loose from the other.

J. J. Thomas.

Remarks.—We give place to the suggestions of Mr. Thomas with great pleasure. They supply the place of a few remarks of similar import we had prepared for this number of the Farmer. We hope to witness the meeting of the friends of pomological reform at the two great assemblies to take place the approching autumn, not in a spirit of *rivalry*, but of *unity*—not as *western* men or *eastern* men, but as American Fruit Growers, aiming at the same end, and animated by the same spirit. Thus, and thus only will these bodies prove themselves alike honorable and useful to the whole country.—Ed.

Industry.—If industry is no more than habit, it is at least an excellent one. "If you ask me which is the real hereditary sin of human nature, do you imagine I shall answer pride, or luxury, or ambition, or egotism? No. I shall say indolence. Who conquers indolence will conquer all the rest." Indeed, all good principles must stagnate without mental activity.

TRANSPLANTING FRUIT TREES.

BY J. FULTON, JR.

Anxious to receive and diffuse light, I was glad to read the article of A. Bryant, in the Farmer for April, taking exceptions to a method pursued by me in planting out an apple orchard, as indicated in the February Number of the "Horticulturist." Should A. Bryant re-peruse the latter article, he will notice that the plan pursued was not offered or urged upon the acceptance of any, nor quite as *my* "(his) method" of "planting an orchard," well settled in my own mind, and tested by experience, but rather as *a method* adopted on this occasion, and defferentially submitted to the judgment and the opinions solicited of the experienced editor of the Horticulturist, "for the benefit of myself and other *beginners* in fruit culture."

This method was not the fruit of my own judgment, for I had not had the *experience* necessary to an intelligent judgment in the case, but the fruit of *some* pomological reading, and the counsel of *many* nurserymen's catalogues, each and all of whom must give a chapter "on transplanting."

Confessing my ignorance, classing myself with "*beginners*," and asking for light, as I did in that article, disqualifies me from seeing so readily how the article in question would be so likely to "mislead the *inexperienced*;" for with all my inexperince and ignorance upon the subject, I should be slow to follow the counsel, or "method" of any one who was himself ignorant and seeking light in the matured experience of others; and I therefore cannot but think that it was the brief endorsement of that method by A. J. Downing, which was, in the eye of A. Bryant, "calculated to mislead the inexperienced." But if this inference be legitimate (and I can conceive of no other cause for his fears) then his controversy is with A. J. Downing, and not with me; and I am anxious to direct such an intelligent pen to a foe worthy of his steel, and I promise him, no one will witness the conflict with more interest than myself. Let us have light, then; "the method" is no pet with me. I am always in search of a *better*.

Nor can I see with the horticultural editor of the Farmer, in his response to his correspondent, how "deep holes" imply deep planting. Our ground is high and dry, and the trees are set above the level of the ground, and not deeper than they originally stood in the nursery; and they are *now*, (July 7th) *every one* of them growing *finely*, without either "staking" or "mulching"—"wetting stem and branches," or "watering the roots." They were all two years old trees—were headed back pretty freely—planted the 15th and 16th of December, and many of them have made shoots of more than a foot in length at the present time.

Still, I am by no means certain that the course pursued was the best—nor that the views presented by A. Bryant are not sound and deserving of general acceptance,—and as we wish to enlarge our orchards this fall, and plant a large additional number of apple as well as other fruit trees, I should be glad to have the views of men of experience upon this important subject; and if this article should be the occasion of directing the attention of such men to this point, I shall be richly paid.

Allow me to add, that I have, since plantng, purchased one of Nourse & Mason's sub-soil Plows, and have pretty thoroughly used it among the young trees, and contemplate using it on the adjoining land this fall *before* planting the trees, which I shall do without "digging deep holes," so that I may test by experiment, the comparative merits of both plans.

Of a large lots of plum, cherry and pear-trees received from Newburgh and Flushing, together with a quantity of others of our own raising, transplanted this spring, and treated with "deep holes" and compost, all are growing finely, excepting a few pear trees, with fine heads which were not cut back, while all the others were—planted from April 5th to 7th. The cherries even, rather difficult to transplant with safety, have all made a good growth without wetting stem or branch—mulching or staking. *East Flowerfield, Chester Co., Pa., July,* 1849.

We are glad to have such excellent cultivators as Mr. Fulton discuss these topics in our columns.—They cannot fail to do good—Ed.

TREES, INSECTS, WIRE FENCES, &C.

Mr. Barry:—I am glad to see so many friends besides yourself, laboring, through the Farmer, with the brethren, about setting trees and flowers. If there is any thing that can add a charm to home, 'tis surely these. Who ever saw a pleasant dwelling place without them? I almost doubt if there could be one! To be sure, they are not essential to the accumulation of wealth, but certainly they lead a shorter and more certain way to happiness. We find a few men, (and *only* the men, I am happy to say,) who will have neither flowers or trees about their homes; these are generally worshipers of mammon. We also find some who say they like to see them; *but* they would have a different kind of trees from others, and plant them differently, and so on; finding fault with the good that others do; *these* are the ones that plant neither one kind nor the other; the very slaves of indolence. But enough of this.

For common shade trees, I think none are better than the *Elm* and *Hard Maple,* though I like to see variety. The *Butternut* should also be set, as it affords both nuts and shade. I would object to setting fruit trees in front of a house for shade, if there is room for them elsewhere, as they do not grow large enough, and are apt to get injured in getting the fruit; but have them *somewhere,* and take care of them too. Trim them, manure them, and keep all insects off. Simply whitewashing will keep off many insects. Last season I had a nice young cherry tree that was infested with scores of worms and other insects. I cleared them all off, and then applied a mixture of sulphur and soft grease for three or four inches on the body of the tree. They crawled up as far as this, but not one would cross it. I think it is an effectual remedy against all "creeping things."

I see the subject of wire fence is attracting much attention, and hope it may induce experiments. I have for some time been thinking of a way of making wire fence, particularly for road fences. It is to set trees for posts; take trees about ten feet high and three inches through, set as near as would be necessary, and perhaps a post at intervals of twenty or thirty rods to stretch the wires upon. The wires are to be fastened to the trees with large wire staples. The trees would perhaps not be fit till two or three years after planting out. I would set low trees with little top, that the wind might not affect them till they get firmly rooted. If trees would answer for posts, it would be a desirable combination of ornament and use. This is only theory. But I would like to know the opinion of others on it. F. R. Miller.—*Sugar Grove, Warren Co., Pa.,* 1849.

NEW SEEDLING STRAWBERRIES.

The Committee on Fruits of the Horticultural Society of the Genesee Valley, examined, July 5th, 1849, some seedling varieties of the Strawberry—selected from plants grown by Elwanger & Barry—and report as follows:

The plants are said to be selected from some thousand varieties, all grown from seeds *bred* between the Hovey's Seedling, Ross' Phœnix, Duke of Kent, and a few plants of the Boston Pine. The soil had for several years previous, borne raspberries, and was evidently in good condition, though Messrs. E. & B. stated that it had received no more than ordinary culture, and some of the varieties, we think, showed as fine fruit, all the desirable qualities being considered, as we have seen grown in this section of country.

1. Is staminate, has a peculiar sweetish flavor, is a moderate bearer.

2. Pistilate, immense bearer, pale scarlet color, form flushed, good fruit for market, shape round, more than medium size.

3. Staminate, large size, sweet and juicy, many of the berries coxcombed, rich flavor, a valuable berry.

4. Staminate, a very juicy fruit, but a shy bearer.

5. Pistilate, a very large fruit, color a light scarlet, with dark seeds, shape mostly round, very juicy, immense bearer, (108 berries were counted on one root) a first rate berry, thought by some of the committee the best of the lot.

6. Pistilate, regularly round shaped, much like the last, thought as good a bearer, and as juicy, but not quite so fine flavored.

7. Staminate, a fair sized, long-necked fruit, but not a first rate bearer.

8. Pistilate, a high-flavored, rather tart, rich fruit, full medium size, an excellent table fruit.

9. Pistillate, a great bearer, juicy and high-flavored, a deep, bright, glossy scarlet, an excellent table fruit.

10. Staminate, a dark berry, long, fair sized, and for staminate a fair bearer, evidently belongs to the Pine class.

11. Pistilate, medium size, very dark scarlet, very juicy, high and somewhat musky flavor, good table fruit, medium bearer.

12. Staminate, a juicy and excellent flavored berry, moddrate bearer.

13. Staminate, tart and dry, not a good bearer.

14. Pistilate, a great bearer, short-necked, high-flavored, very juicy, size above medium, thought the best of all the varieties.

16. Pistilate, flavor much like No. 14.

17. Pistilate, tart, rather dry fruit.

18. Pistilate, good bearer, rather late, a fine flavored fruit.

19. Staminate, a large, excellent fruit, high flavored.

20. Staminate, large, neck-shaped fruit, curiously angular in form, some appearing double, tripple, and quadruple.

21. Staminate, long necked, high colored, resembling the Duke of Kent, but much larger, and more tart, an excellent fruit.

22. Color a beautiful orange scarlet, an excellent table fruit, being tart, very large, and a very good bearer, and valuable for its lateness.

The committee were very highly gratified with the success of Messrs. Elwanger & Barry, in their attempt to enlarge the number of varieties of good strawberries adapted to our soil and climate.

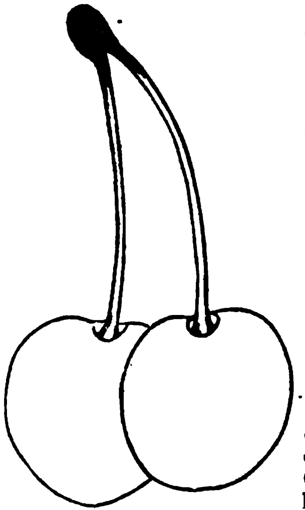
Samuel Miller, Ch'n,
J. A. Eastman,
James M. Whitney,
Rochester, July 5, 1849. James H. Watts.

From the above collection, Messrs. Elwanger & Barry have selected five sorts, which they consider eminently worthy of cultivation, combining large size, fair quality, with extraordinary productiveness.

They have borne for two years beside the best known varieties, and under the same conditions, and have, so far, surpassed them all in productiveness. They cannot say how they may succeed in other localities, but here Messrs. E. & B. feel confident they will prove valuable.

The following are the names of varieties chosen: No. 6, Monroe Scarlet; 11, New Necked Pine; 16, Climax Scarlet, 22, Orange Prolific.

THE REINE HORTENSE CHERRY.



Fruit large, roundish oblong. Stalk about 1½ inch long, and rather slender. Skin very waxy—pale red, similar to Belle de Choisey.—Flesh pale amber colored, tender, juicy and sweet. Stone medium size. Tree bears very early and abundantly; in its growth similar to May Duke—is very hard, and will prove valuable for Northern localities. Ripens from the beginning and middle of July; began to ripen about the 4th this season, and on one tree was wholly ripe on the 9th. It is one of the best for dwarfs. Cultivated on the Mahaleb, trees two years from bud will be nice bearing bushes.

This is the second year this fruit has borne with us, and we are glad to say that it sustains, much better than many others, the high character which the French and some English cultivators have given it. We can recommend it among the smallest assortment of garden trees.

A FEW HINTS FOR AUGUST

The most important operation during this month is the increase of trees and shrubs by *budding* and *layering*. Much of this has already been done, but there is, no doubt, a great deal yet undone. Plums are usually budded first, as they are apt to cease growing early, and the bark will not peel. Indeed, unless in a particular case, if not done now it can hardly be done this season. Pears should come next, lest leaf blight may check the growth so much as to prevent the bark rising. Cherries should be done at once, as the young wood is now ripe enough to take buds from. Apples, peaches, apricots, nectarines, pears on quince stock, or cherry on mahaleb stock, may all be budded any time between now and the middle of September, as the stocks all grow till late in the season.

Rose or other buds put in early in July should now be opened, as the bandage will become too tight; if necessary they might be retied.

Layering of Roses, Carnations, &c.—Various ornamental trees and shrubs that produce little or no seed, and do not strike easily from cuttings—quinces, grape vines, gooseberries, and a multitude of other thing may now be increased by this operation.

Strawberries.—New plantations may be made now at any moment of suitable weather—damp and cloudy if possible. Old beds should have a dressing, all the runners cut off, and cleared of weeds. The soil for strawberries should be well trenched and manured.

Raspberries should have the old canes that bore this year cut away as soon as the fruit is gathered.—This allows the young canes for next year's bearing to strengthen and ripen fully, and pass through the winter more safely than if left crowded up, as is usually the case.

Pyamidal Pear Trees, &c., will require to be looked over now and again, all this month; the desired form of the tree must be maintained, and the head kept open by stopping some branches, encouraging others, and removing some entirely, or at least cutting them back to within two or three eyes of the old wood.

Nursery trees should not be pruned up to single stem till strong enough to stand straight. Young peach trees of this season's growth should have the side branches shortened, or the ends simply nipped off. All crooked growing sorts should be kept tied to a suitable stake, as, if allowed to bend over, the course of the sap is interrupted, and growth directed to a wrong point. Grafts of last spring should be looked over again, and any shoots that have grown out from the stock about them removed.

Dahlias.—Thin out surplus and weak branches, and keep neatly tied to stakes. They are easily broken by the wind. All other flowreing plants should be kept neatly tied up, and flower stems should be removed as soon as the flowers droop, as they become unsightly.

Young plants for next season's bedding out, may now be propagated from cuttings of Pansies, Petunias, Verbenas, Scarlet Geraniums, &c.

* * *

In view of the Pomological Conventions that are to be held this fall at Syracuse and New-York, we are anxious to collect as much information in regard to the fruits of this region as possible. The *Strawberry, Currant, Raspberry, Gooseberry* and *Cherry* season is about closed with July, and we will feel greatly obliged if any of our friends who may have made notes respecting particular varieties, will furnish us a copy. With August we get our *Apricots, Early Pears, Apples, Peaches* and *Plums*, and we hope that as they ripen they will be critically examined.

* * *

We are indepted to Mr. Mr. Zera Burr, of Perrinton, for specimens of his seedling Cherry, described in our last volume, about a year ago. It is a handsome, delicious fruit, and the tree is quite remarkable for its luxurient foliage and upright, compact growth, surpassing even the Black Tartarian. It grows late in the season, when all others have stopped, so that in the autumn months it may be distinguished by its freshness of foliage.

* * *

Erratta.—On page 170 of last number, the word "plums" was left out after "eke some," leaving the sentence, as our correspondent has remarked, "on one foot." Again, on the preceding page, in "Hints for July," "Plants that are *headed* out," should read "plants that are *bedded* out. On page 168, there are several errors that show great carelessness on the part of the printer. *Foliage* is given *foilage* in half a dozen places; *Europæus* is printed *Europasus*; *Cytissus, Cytussus; Hawthorn, Hawrthorn,* &c.

* * *

It is a truth well established among cultivators, that land planted with fruit trees of good varieties, will yield more to the acre, for man and beast, than any other crop, with less labor.

FOREIGN MARKET FRUITS.

We are under much obligation to **Mr. Rivers** for the following interesting and valuable notes on fruits, which have proved valuable for general cultivation. —*Editor Horticulturist.*

Rivers' Early Prolific Plum.—(Rivers' Early, No. 2.)—Our plums failed last year, so that I have nothing new to record. But I ought to except my seedling—No. 2—or *Early Prolific*. This plum *always* bears, and always commands a good price. It has sold in Covent Garden market these three seasons past, for 7s. per half seive, which is 15s. (about $3,75) per bushel, or as nearly that as possible. Although in that market it has to compete with foreign plums, its bloom is so fine and its quality so good, that it is always the first sort sold. I mention this as it will, of course, do as well in your fine plum country, and make the fortune of some orchardist there. My market salesman sent me word last season that I ought to plant *acres of it*, for no early plum could compete with it. [This plum is now considerably disseminated in this country. It bore last year, both in Mr. **Manning**'s collection at Salem, Mass., and in our own garden; and in both cases, as far as an opinion could be formed upon a single year's bearing, promised to justify **Mr. Rivers'** high commendation.—*Ed Horticulturist.*]

Reine Claude de Bavay—is a most prolific and excellent *late* plum. It also will be found worthy of attention by your orchardists. This and *St. Martin's Quetsche* may be planted by the acre with the certainty of a profitable remuneration. In August, and early in September, when plums are in full season, there is such a glut in the markets that they become nearly unsaleable. Green gages, therefore, I have known sold at 1s. 6d. [34cts.] per bushel. The plum orchardists must on this account, avoid planting many of these mid-season sorts, and cultivate chiefly *very early* and *very late* varieties.

Coe's late Red is a most abundant bearer, but not so large or so good as St. Martin's Quetsche. By the way, I have never yet found this latter plum on the Continent. The "St. Martin's" there, as is well known, is Coe's late Red, and is always a purple plum.

Dwarf Plums.—I have, I think succeeded in dwarfing the plum. I have plants of the Green Gage, only 10 *inches high*, full of blossoms; and some in pots, under glass, not more than a foot in height, with their fruit set. They are grafted on the Sloe, or Blackthorn (*Prunus spinosa.*) This grows abundantly on the clay banks in this neighborhood, for it seems to flourish naturally only on poor, calcareous, clay soils—i. e. white clay, full of chalk stones. This species of Prunus, or wild plum, has long attracted my attention, for I have observed that it never forms a tree, but always remains a shrub of some six or eight feet in height. I also found it most impatient of removal, unlike other plums, and therefore thought it might be easily kept in check by root pruning. I have, accordingly, had a few of each of our finest plums grafted on stocks raised from seeds of this species, and am happy to find them easily kept in check, and quite inclined to make exceedingly pretty dwarf trees. The graft unites well, but is rather shy of "taking," as not more than three out of five have hitherto succeeded. Budding may do better, but has not as yet, succeeded as well as grafting.

Apples, in England, are, in most seasons, so sharp as to scarcely pay for gathering. Yet there are some few kinds that remunerate the orchardist. I grow but two varieties for market crops; vis., the *Sturmer pippin* and *Dumelows' seedling*. These are both favorites in Covent-Garden: of the former I have about 2000 trees, from 3 to 10 or 12 years old —a partial crop last season has given me 150 bushels or more. These are now making in Covent Garden market, from 10s. to 16s. ($2,50 to $4) per bushel, and will make a better price at the end of the next month. Dumelow's seedling is much esteemed for its acidity and *falling* properties [as a cooking apple, we suppose. **Ed.**] This is generally sent to market in February and March, and makes from 6s. to 8s. per bushel.

Mr. **Barry**, of Rochester, who was here in December last, kindly brought me a basket of Northern Spy and a few Melon apples. They were all delicious. *Your* apples—such as these—I can eat, as they are tender—almost melting, and easy of digestion. Our apples, with few exceptions—such as Reinnette de Canada, and one or two others, are too crisp and hard for delicate stomachs like mine.

I am, my dear sir, yours truly, **Thomas Rivers.**—*Sawbridgeworth, Herts, England, April* 28, 1849.

Items and Extracts.

Agricultural Shows for 1849.—Annual Fairs of State and County Agricultural Societies are to be held the ensuing fall as follows:—

New York State,	Syracuse,	Sept. 11, 12 and 13.
Cortland County,	Homer,	Sept. 26 and 27.
Delaware "	Delhi,	Oct. 3.
Essex "	Keeseville,	Sept. 18 and 19.
Herkimer "	———	Sept. 6 and 7.
Jefferson "	Watertown,	Sept. 26 and 27.
Livingston "	Geneseo,	Sept. 4 and 5.
Monroe "	Rochester,	Sept 26 and 27.
Onondaga "	Syracuse,	Oct. 3, 4 and 5.
Oneida "	Hampton,	Sept. 26 and 27.
Rensselaer "	Troy,	Sept. 25, 26 and 27.
Saratoga "	Mechanicsville	Sept. 11 and 12.
Seneca "	Ovid,	Oct. 4 and 5.
Washington "	Whitehall,	Sept. 19 and 20.
Michigan State,	Detroit,	Sept. 26 and 27.
Maryland State,	Baltimore,	Oct. 10, 11 and 12.
Worcester Co. (Mass.)	Worcester,	Sept. 20.
Middlesex "	Concord,	Oct. 3.
New Haven, (Conn.)	New Haven,	Sept. 25, 26 and 27.

Drought.—The Owego (Tioga county) Gazette of July 20, says:—"There has not been rain enough during the last four weeks, in this region, to put in a tea pot. We hear of showers now and then, at some little distance off, but in this neighborhood everything is as dry as powder; and the crops, especially corn and potatoes, are suffering from this cause beyond any former season within our recollection."

We have similar reports from other locations, and very much damage has been caused by the unusually dry weather of the past few weeks. The St. Lawrence Mercury of the 13th says:—"Never before since our recollection has this section of country suffered so much from want of rain. The grass crop in all this county must be extremely light, and many wheat fields are ruined past all recovery. Rain soon, may save corn and potatoes, but grain must, even with immediate heavy rains, of which there seems, however, no prospect at present, be very light indeed: many places not worth the harvesting."

The State Fair.—We learn that extensive arrangements are being made by the officers of the State Agricultural Society, and the citizens of Syracuse, for the September Exhibition—and it is believed the Show will be better, and more largely attended, than any preceding one.

Guano and Bone-dust.—(E. B., Monroe, O.) You can probably obtain both of these articles of A. B. **Allen** & Co., 189 Water street, New York. We believe neither are for sale in Buffalo or this city.

Gigantic Hemp.—A new kind of hemp has just been introduced into France, from China. It is called the *Lomacorchasus*. It is represented as growing twenty-four feet high, and the stalks from five to six inches in circumference. It produces seed abundantly, and each plant will furnish fibre enough to make a yard of superb lawn.

It ripens its seed well in the south of France, and of course will be at home in some parts of the southern states; and if it be half as profitable a plant as is represented, would be a valuable acquisition to that section of the Union. Some allowance must be made for French enthusiasm. They always crack up their new acquisitions higher than any body else, and will make the *tallest* display with the least capital, of any body on earth.—*Maine Farmer.*

Georgia Burr Stone.—The Savannah Georgian notices the existence of a burr-stone quarry, in Burke county in that state, near the line of the Central Railroad leading to that city. The stone obtained from the quarry, is said to be equal, and in some respects, superior to that of the French quarries. A company has been organized in Savannah, who are preparing to go extensively into the business of manufacturing millstone from it, and expect to be able to supply the demand of this country with as good an article as is now procured from France.

Hereford Cattle.—We would direct attention to the advertisement of the Messrs. **Bingham**, of Vermont, who propose to sell at public auction, at our State Fair, some noble specimens of this breed of stock. They will also offer, at private sale, pure bred Merino Sheep.

Ladies' Department.

TO PRESERVE TOMATOES.

Six pounds of tomatoes first carefully wipe,
Not fluted nor green, but round, ruddy and ripe;
After scalding, and peeling, and rinsing them nice—
With dext'rous fingers 'tis done in a trice—
Add *three* pounds of sugar, (Orleans will suit,)
In layers alternate of sugar and fruit.
In a deep earthen dish, let them stand for a night,
Allowing the sugar and juice to unite!
Boil the sirup next day in a very clean kettle,
(Not iron, but copper, zinc, brass, or bell metal,)
Which having well skimmed, till you think 'twill suffice,
Throw in the tomatoes, first adding some spice—
Cloves, cinnamon, mace, or whate'er you like best—
'Twill add to the flavor, and give them a zest.
Boil slowly together until they begin
To shrink at the sides, and appear to fall in;
Then take them up lightly, and lay them to cool,
Still boiling the sirup, acording to rule,
Until it is perfectly clear and translucent—
You skill will direct you, or else there's no use in t—
Then into the jars, where the fruit is placed proper,
Pour boiling the sirup, direct from the copper.
After standing till cold, dip some paper in brandy,
Or rum, or in whiskey, if that is more handy;
Lay it over the fruit with attention and care,
And run on mutton suet to keep out the air;
Then tie a strong paper well over the top—
And, "now that I think o'nt, the story may stop."
If you'll follow these rules, your preserves, never fear,
Will keep in good order till this time next year.

Washington, October, 1848. A. B.

WHO IS THIS FAIR LADY ?—A late number of the Horticulturalist contains the following sketch of a paragon:—"In the midst of the richest agricultural region of the Northern States lives a lady—a young unmarried lady, mistress of herself, of some thousands of acres of the finest land, and a mansion which is almost he ideal of taste and refinement. Very well. Does this lady sit in her drawing room all the day to receive her visitors ? By no means. You will find her in the morning either on horse back or driving a light carriage with a pair of spirited horses. She explores every corner of the estate; she visits her tenants, examines the crops, projects improvements, directs repairs, and is thoroughly mistress of her whole demesne. Her mansion opens into the most exquisite garden of flowers and fruits, every one of which she knows by heart. And yet this lady, so energetic and spirited in her enjoyment and management of out-of-door matters, is in the drawing-room the most gentle, the most retiring, the most refined of her sex."

HOME.—The ordination of Providence, says a distinguished writer, is that home should form our character. The first object of parents should be to make home interesting. It is a bad sign when children have to wander from the parental roof for amusement. A love of home is one of the strongest safeguards against vice—not to children only, but to men. Men who delight in their own firesides, are never seen lounging about bar-rooms and oyster saloons. Make home attractive to your children—so that they will leave it with regret, and return to it with joy—for this is a mighty preservative against vice.

MULLED WINE.—One pint of wine and one pint of water.

Beat eight eggs and add to the above while boiling, stirring rapidly. As soon as it begins to boil it is done.

Boys' Department.

CORRECT SPEAKING.—We advise all young people to acquire in early life the habit of using good language, both in speaking and writing, and to abandon as early as possible, the use of slang words and phrases. The longer they live, the more difficult the acquisition of such will be; and if the golden age of youth—the proper season for the acqusition of language—be passed in its abuse, the unfortunate victim of neglected education is very probably doomed to talk slang for life. Money is not necessary to procure this education. Every man has it in his power. He has merely to use the language which he reads instead of the slang which he hears, to form this taste from the best speakers, writers and poets of the country; to treasure up choice phrases in his memory, and habituate himself to their use—avoiding at the same time that pedanic precision and bombast, which bespeak rather the weakness of a vain ambition, than the polish of an educated mind.

READING.—A proper and judicious system of reading is of the highest importance. Two things are necessary in perusing the mental labors of others:—namely, not to read too much, and to pay great attention to the nature of what you do read. Many people peruse books for the express and avowed purpose of consuming time; and this class of readers form by far the majority of what are termed the "reading public." Others again read with the laudable anxiety of being made wiser; and when this object is not attained, the disappointment may generally be attributed, either to the habit of reading too much, or of paying insufficient attention to what falls under their notice.—*Selected.*

SPARE minutes are the gold dust of time; and Young was writing a true as well as striking line when he affirmed that "sands make the mountain, moments make the year." Of all the portions of our life, the spare minutes are the most fruitful in good or evil. They are gaps through which temptations find the easiest access to the garden.

NOW IN PRESS,
TO BE PUBLISHED ON THE FIRST OF AUGUST,
THE AMERICAN FRUIT CULTURIST,
BY J. J. THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist, containing more than triple the matter of the former editions, having been wholly re-written, so as to embrace essentially
ALL THE VALUABLE INFORMATION
Known at the present time, relative to
FRUITS AND FRUIT CULTURE.
It will contain more than
THREE HUNDRED ACCURATE ENGRAVINGS,
And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are
EXACT IMPRESSIONS
Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole will form a handsome duodecimo volume, at the low price of One Dollar. July 1, 1849.

Wheeler's Patent Horse Power and Thrashing Machine.

HAVING increased facilities for the manufacturing of the above Machines in this city, the public can be supplied with them at short notice, at wholesale and retail.

To those farmers who wish the machines to sell. and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale, and warranty, see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist; also. catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them, and having been extensively used since 1841, are known to be durable—and are much improved in several respects.

The cost of thrashing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season:

Five men in thrashing time to thrash and clean, averaging 200 bushels per day for market,	$5 00
Two horses,	1 00
Boarding 5 men and two horses, at 8s,	2 63
	$8 63

Amounting to a little over 4⅜ cts. per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependent upon others for labor or machines.

While his expenses, when he hired machines were never less than the following:

For thrashing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine,)	2 00
Six men, (besides two with machine,)	6 00
Boarding all hands and horses,	5 25
	$25 75

Amounting to about 10⅜ cents per bushel. And if to this be added the average loss by imperfect thrashing and separation of grain from straw, more than with Wheeler's Thrasher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15⅜ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of grain-growing farmers for thrashing; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention.

HORACE L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use.) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD. GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment.

RAPALJE & BRIGGS.
Rochester, May 1, 1849.

An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock. crops in ground, and farming utensils, &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him, Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester

[5tf] JOHN OGDEN DAY.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office.

BACK numbers (and volumes) of the Farmer promptly supplied to all new subscribers.

Choice Strawberry Plants for Sale at the Mt. Hope Garden and Nurseries.

AUGUST and September being the best time for forming Strawberry Plantations, we offer for sale on reasonable terms, the finest varieties now cultivated. At the head of the list we place BURR NEW PINE, which, (size, flavor and productiveness being taken into consideration,) is perhaps the best Strawberry yet produced. Also,

Myatts' British Queen,
Bishop's Orange,
Boston Pine,
Burr's Rival Hudson.
Burr's Columbus,
Black Prince,
Hovey's Seedling,
Large Early Scarlet,
Princess Alice Maud.
Swainstone's Seedling,
Deptford Pine,
Ross's Phœnix,

And a variety of others, such as Alpine Red Bush, Alpine White Bush, Alpine Red Monthly, White do., Wood Red and White, and a variety of others, to which we invite the attention of all who intend to plant the Strawberry. A good article costs but little more in the first place than a poor one, and re-pays tenfold.

Rochester, July 1, 1849. ELLWANGER & BARRY.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*.

An agricultural implement as important as this should be afforded at a rate that places it within the reach [illegible] farmer. To accomplish this Mr. Palmer has spared [illegible] become acquainted with all the Drills in use by [illegible] English and American Agricultural works, and [illegible] copies of inventor's claims, issued or pending [illegible] Patent Office. He has used different kinds of drills for [illegible] years, and has learned by practice the wants of the far[illegible] After repeated efforts and expensive experiments he has [illegible]duced a simple, substantial Drill, which by way of eminence [illegible] calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention.

J. A. HOLMES & CO.
Brockport, March 15, 1849.

Wheelers' Patent R. R. Horse Powers and Threshing Machines.

THE attention of Farmers is solicited to the following extract from a communication of J. N. ROTTIER, Esq., of Lafargeville, N. Y., June 6, 1849, concerning Wheelers' Patent Horse Powers, &c.

To H. L. EMERY:—"The fact is, the whole of the Machine is an admirable simple contrivance, and that any improvement could be made to it, would seem, incredible to me, if I had not your word for it. Practically a farmer, I have used these fourteen years, a great variety of Threshing Machines, Horse Powers, &c., but with none am I as well satisfied as with yours, purchased of you two years since. One year more and mine will have paid for itself, and then I would not take $200.00 for it, and do without another like it. With a change of horses in the afternoon and hands enough to stack or take away the straw, I believe I can thresh with it as much per day as with any large six horse machine, and with as much ease for the horses. But then we do not want all the neighbors to help us, as three of us generally thresh from ten to twelve hundred sheaves in a day, beside taking care of a large stock of cattle, &c. It is in fact, the very machine which should stand on the barn floor of every farmer, or where the farm is not large enough, two or more farmers should join and own one together—change works and do their own threshing.

J. N. R."

Woodbury's Horse Power and Separator.

THE Subscribers, having erected extensive works, for manufacturing WOODBURY'S PATENT IMPROVED HORSE POWER AND SEPARATOR, are prepared to furnish a machine to order, combining greater simplicity, durability, and operating much easier than any other in use. The Horse-Powers are mounted, and operated on wheels, thereby saving three-fourths the usual time in setting up—and we will warrant it, together with the Separator, superior to any in use.

Communications for further particulars, (post-paid,) cheerfully responded to.

J. & D. WOODBURY.
Rochester, N. Y., June 1, 1849. (5-3t*)

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Market Prices of Agricultural Products.

New York, Saturday, July 21.

Ashes—Are 5 62½a5 69 for Pots, and $6 for Pearls, with sales 125 bbls.

Flour and Meal.—The market is again easier for the low grades of flour, but good and sound parcels are firm, with rather an upward tendency. The supplies of low Flour is large, and sales are making at a decline. The transactions add up 7.500 bbls. including 1,800 bbls. fine, and sour at $4a4 25 for sour, and 4 12½a 4 31½ for fine. The amount of fine on the way is considerable. The quotations are 4 75a4 87½ for common State, 4 62½a4 75 for common Western, 4 87½a4 94 for good and strait Western, 5a5 12½ for good Ohio and favorite Indiana, 5 06a5 12½ for pure Genesee, 5 25a5 50 for fancy Western. A sale of 2,000 Canadian was made at 4 50 in bond. The export sales are 4,000 bbls. In Southern, the market is firm, with sales 400 or 500 bbls. at 5 12½a 5 25 for common and good brands, and 5 50 for new Brandywine A sale of 300 or 400 bbls extra Southern made at 5 62½. Meal is dull at 2 94 for Jersey, with sales 200 bbls. Sales 200 bbls. rye Flour at $3.

Grain.—The market for wheat is rather more active, but generally prices are heavy. A cargo of new Southern is on the market. Sales 3,800 bushels prime Ohio at 110c Corn is held at previous prices, with moderate supplies. The foreign news has had no effect. The sales are 55,000 bushels at 52c. for damaged, 55a56½c. for mixed, 57c. for yellow, 55c. for round mixed, 59a59½ for round yellow. Sales of 2,000 bushels Rye at 57c. delivered.—Oats are plenty and dull. Sales at 34a35½ of 20,000 bushels.

Provisions.—Pork is held higher by the dealers, but buyers do not come in freely. The sales are 400 or 500 bbls. in lots at 10 75 a10 81, and $9 for Prime. Mess at the close was held at $11.—About 200 bbls. beef sold at 11 50 for prime, $12 for railroad and 13 50a$14 for Mess. Within some three weeks about 1,600 tierces, Prime mess, have been sold, including 500 previously reported at 16 50a17 25. The buyers repacked this beef, and sold it in barrels. Lard is firm, with sales 100 tcs. and bbls. at 6½a7c. Cut meats are firm, with sales 350 tierces at 6½a7c. for pickled hams, the latter a good parcel. Butter is doing better. Sales Ohio at 7a11c. Western tubs 10a14c. Cheese is in fair demand at 2a6½ cts.

Hemp.—American is now in pretty good supply, but the views of holders are for the most part above those of buyers. and we have only to notice sales of 100 bales Dew rotted, in lots on private terms; nothing done in Foreign.

Strawberry Plants for Sale.

Pistilate—
Burr's New Pine,
Rival Hudson,
Columbus,
Black Prince,
Crimson Cone,
Hovey's Seedling,
Bishop's Orange.

Staminate—
Boston Pine.
Ross' Phœnix.
Burr's Old pine,
Swainstone Seedling,
Large Early Scarlet.

Having grown the above varieties of Strawberries for two or three seasons past, and used much care, to keep them pure and unmixed, all orders will be attended to, and genuine plants forwarded—

Burr's New Pine, is *the best Strawberry ever grown*, and the earliest of all large berries.—The Rival Hudson, for its prolificness, hardness of berry, and rich subacid flavor, is the best market berry I have grown.

Pistilate plants are the best bearers; but they all require Staminate plants near them for fertilizers.

Prices of Plants.—Burr's New Pine, 50 cts. per dozen, or $3 per hundred. Hovey's Seedling, Burr's Old Pine, and Large Early Scarlet, each 25 cts. per dozen, or $1 per hundred. All the other varieties, 50 cts. per dozen, or $2 per hundred.

Rochester, August 1, 1849. [8-2t.] M. G. WARNER.

Sale of Hereford Cattle.

THE MESSRS. BINGHAM, Brothers, of Vermont, will offer for sale from ten to twenty head of HEREFORDS, 3 years old and under—bulls and heifers. We purchased our herds of Corning & Sothom—have given them a fair trial—have made up our minds that all things taken into consideration, they are the best race of improved cattle extant, and are determined to push ahead in the improvement of them. We shall sell at Public Auction, at the State Fair at Syracuse, and shall offer some noble samples of the race.

Pure Merino Sheep.

Also, at private sale, same time and place, a large lot of pure bred MERINO SHEEP, from imported sires. Breeders of sheep will do well to look over our flocks before purchasing elsewhere. We shall offer no mongrels or grades, but our best blooded sheep, at fair prices. [8—2t.

Peruvian Guano.

JUST arrived, fresh from the Chinche Islands, 730 tons first quality Peruvian Guano. Six years' experience in the use of Guano, by our farmers and gardeners in the states bordering on the Atlantic coast, has proved it far superior to any other, and the cheapest manure they can purchase. It is particularly valuable for wheat, grass, and all field crops; also fruits and garden vegetables. Inquire at the Agricultural Warehouse and Seed Store, of

A. B. ALLEN & CO.,
[8—2t.] 189 & 191, Water St., New York.

A Small Farm Wanted.

A Letter addressed to C. S., Newport, N. Y., describing the premises and mentioning the terms, will receive attention.

August, 1849. [8—3t*.

Morgan Colt for Sale.

A Bright Bay Horse Colt, foaled April 26, 1848, of great promise, sired by Gen. Gifford, from a mare of unsurpassed travelling qualities. Inquire at this office, or of J. DORR, Scottsville. [7-1t*]

THE GENESEE FARMER,
Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

Five Copies for $2, and any larger number at the same rate, if directed to each subscriber. Eight Copies for $3, if addressed to *one person only*—and any larger number, directed in like manner, at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—in advance. The circulation of the Farmer is from five to eight thousand larger than that of any other agricultural journal published in the United States.

☞ The Farmer is subject to newspaper postage only.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. • ROCHESTER, N. Y.—SEPTEMBER, 1849. NO. 9.

EXPORT AND PRESERVATION OF BREADSTUFFS.

The export of Breadstuffs from the United States to Great Britain and Ireland is steadily on the increase. From September 1st, 1848, to July of the present year, the export of corn was 11,472,017 bushels against 3,386,636 during the corresponding period of the year previous. In the quantity of wheat and flour sent to England, the gain is equally large. Whatever competition the latter may encounter in British markets from continental or home grown wheat, American corn and meal if delivered in good order, must be cheaper, one year with another, than any other article of human food of equal nutritive value. In 100 pounds of potatoes there are 75 pounds of water. This renders potatoes more liable to rot, and a more precarious means of subsistence than the seeds of cereal plants. The latter will alone form good bread; and hereafter they must constitute the main dependance of the poor and laboring people of Ireland and Great Britain for daily consumption. All parties there now concede that the lower classes should be provided with ways and means, *somehow*, to command more of the comforts of civilization than they hitherto have enjoyed. We have great faith in the maxim, "where there is a *will* there is a *way*." The British empire is undergoing a social revolution of no small moment to the agricultural interests of this country. It is barely possible that the production of public paupers on a magnificent scale may continue a year or two longer; but the *turning point*, if not already reached, soon will be.

Blackwood's Magazine for July contains an interesting and instructive article under the expressive title: "The Crowning of the Column and *the Crushing of the Pedestal*." From this we learn that the poor rates of England have reached the immense sum of £7,000,000 a year; and that one seventh of its entire population are now supported by the parish rates." The whole poor rates for England, Scotland and Ireland for the last year were £9,460,757; or about forty-seven and a half millions of dollars. "The poor rates of Glasgow, which five years ago did not exceed £30,000 a year for the parliamentary city, have now reached £200,000: viz., Glasgow parish £90,000; Barony £70,000; Gorbals £40,000; total £200,000." Let the independent and comparatively untaxed American farmer realize the condition of society in a city where *one million of dollars* are required to support its public paupers a year!

Had American corn meal arrived at British ports in a sound condition, and in no degree impaired by kiln-drying, the consumption of this food would be double what it now is. To learn a nation to eat and love this great staple of the Union, with which it is unacquainted, we should not begin by sending sour and musty meal, to offend both the taste and smell of our new customers. Nor should its panification, or ability to ferment and make light bread, be destroyed by overheating and partial cooking in drying corn by steam, boiling water, stoves or furnaces. Incalculable damage has been done by processes of this kind. Wheat and corn, flour and meal naturally contain from eleven to thirteen per cent. of water, about one half of which must be expelled and the flour or meal well packed in good barrels or water-proof sacks, to exclude both moisture and common air. It does not require that water should be up to a boiling heat to cook flour, meal, meat, eggs, potatoes and corn. This remark applies alike to *starch, gluten* and *albumen*. Hence, in drying the seeds of cereal plants, and meat, the temperature should never be raised much above the heat of a summer's sun; say 130 degrees. This is abundant in Georgia, and will be in every other state for drying corn. By taking a little more time to drive off the moisture at a comparatively low temperature, not the least chemical change or cooking takes place. The natural flavor and fermenting properties of the meal are fully preserved. This is a matter of great importance.

Instead of placing corn, wheat or meal on heated iron cylinders, plates, or brick, it should be desiccated by hot and dry air sent up through the grain and carrying off its dampness without heating a single kernel more than 130 or 140 degrees. The shallow bins which hold corn or wheat should have a fine wire seive-like bottom, resting on a strong frame so as to permit heated air to pass upward through the seive and yet hold the grain. These drying bins should be made to tip like a common cart body, and deliver well dried grain in a storage room, which should be in the drying house to prevent the re-absorption of moisture from the atmosphere, before the corn or wheat is ground and put up in barrels. In an ordinary room, perfectly dried meal or flour will imbibe from the air, from eight to ten per cent. of water in twenty-four or thirty hours, according to the weather. It is obvious this tendency must be guarded against. Grain should be ground as soon as may be after it has been dried, and the meal or flour be well put up for market. The drying building should have a double wall to keep out damp; it should be well ventilated above, with tight shutters, and heated by large stoves or furnaces in the basement to the proper temperature, under all the grain in the establishment. In this way common merchantable grain can be economically dried so as to keep in tight barrels for any length of time in any climate, without the least deterioration to the meal or flour.

Water-proof hats are made by dissolving gum shellac in alcohol, and working this gum, which is insoluble in water, into the body of the hat. Heavy cotton bagging is generally cheap in Georgia, and is used for sacking flour and meal. To prevent dried meal from imbibing dampness through these bags, at our suggestion, they are partially saturated with this gum. Perhaps India rubber or gutta percha would be better as well as cheaper. Grain, flour and meal must not only be fairly dried (not contain over five or six per cent of water,) but it must be kept in that condition, whether in a damp cellar, in the hold of a ship, or elsewhere. Millers should have their flour barrels as tight as they well can, and learn to test the quantity of water in 100 parts of wheat, corn, flour and meal. One hundred grains of ordinary flour or meal put on a piece of white paper five or six inches square, and this placed on a plate in a stove as hot as it can be and not burn or scorch the paper; and then if stirred a little with the point of a dry, clean knife, it will lose some ten per cent. of its weight in thirty or forty minutes by drying. A little practice will make one familiar with the operation, and the dampness of breadstuffs.

In hot climates grain can be dried sufficiently in the sun to keep well, if immediately excluded from the surrounding atmosphere. This object has long been attained in Spain, Egypt and parts of Asia, by burying wheat in pits dug into the dry earth, which are closed with tight covers, pitched over to exclude the air. A large cement cistern quite impervious to water, if filled with dry wheat, corn or meal and hermetically sealed, would retain its organized food *without change*, for indefinite ages. Air-tight, cool, earthen reservoirs which will hold from 500 to 10,000 bushels, will soon be constructed in all cities, if not by farmers, for keeping grain, apples, potatoes and provisions. The science of preserving human food is in its infancy. Some of our readers know the advantage of burying potatoes and apples in dry earth three or four feet deep, where they remain nine months, or longer if need be, without heat, air, water, rotting or sprouting. To preserve vegetables, butter, lard and meat is much easier in New York than in Georgia; but it can be done in both States and in all climates. The subject, however, is very little understood either by farmers or provision dealers.

* * *

DEEP AND SHALLOW PLOWING.—Some of your correspondents recommend deep plowing, while they say nothing about the depth of the soil. Now it is well known that some soils will bear plowing eighteen or twenty inches deep without injury, nay, with decided advantage; while others, if plowed to the depth of *six* inches, will be rendered worthless, without the addition of a large amount of vegetable matter. In such a soil, subsoiling would be higly beneficial; deep plowing, of itself, ruinous. Hence, plow deep, or not, according to circumstances.—Knowing the depth of his soil, each farmer should be guided by his judgment and experience. H.

AGRICULTURAL SOCIETIES.

BY AGRICOLA.

As the season for the meeting of these associations is at hand, I have thought it might be useful to farmers to say a word or two in relation to their importance, and the duty of farmers and others to sustain them. No one who has watched the progress of the Societies in this State since 1841, can doubt that they have accomplished much for the farmer. Not only have those been benefitted who have taken a part in their proceedings, but others who have stood aloof have indirectly received permanent benefit. The object of these associations is to bring the farmers together, compare their views on matters of deep practical interest to them—to discuss questions appertaining to their own farms and firesides—and thus from the experience of each other, secure an improved system of operations that will eventually greatly add not only to their comfort, but to their prosperity and pecuniary advantage. But to make these associations in every respect what they should be, it is all important that they enlist the whole agricultural community. To every man who cultivates the smallest portion of land they are important. However small his domain, he has an interest in the advancement of his profession, and he should by his presence and his efforts, give aid and encouragement to an association designed to benefit him.

The MECHANIC is deeply interested also in these associations. Who does not know that the demand for the work of the mechanic has a direct and most important connection with the prosperity and advancement of the farmer. No mechanic, therefore, should look upon these associations in any unfavorable light. He should encourage them by his presence and also by the exhibition of the work of his hands.

The MERCHANT too, has an interest in the prosperity of these associations. Who does not know that in proportion as agriculture improves every other pursuit is prospered. The improvements in the farms and dairies of our State, the choice and valuable cattle, sheep and swine which have been the result of these associations, all tend to the benefit not only of the farmer, but of the merchant also.

The PROFESSIONAL MEN have also an interest in sustaining these associations, and I am glad to be able to say that, so far as my observation extends, they have ever been active and efficient promoters of our county and state organizations.

The spirit of improvement and competition which has been enlisted by these annual gatherings has been most salutary, and we trust that an increased interest will be manifested in them, until every town and every county in our State will so feel and realize the importance of the subject as to enlist their energies to sustain and support them. I am aware that there are objections against these associations—generally made by those who take no active part in them, and who do not personally interest themselves in their operations. These objections are various, and many of them may have more or less foundation—but let me ask, would it not be the part of wisdom, if you see things that are not in all respects as you could wish, to come up yourself to the aid of others, and by your advice and example assist in correcting these things, and thus add to their efficiency and usefulness? It may be that your influence is the very thing that is wanting, and instead of complaining, act for the good of others—for the advancement of a cause which you admit is all important—and render it as perfect and as successful as any thing can be in this imperfect world. This would be wise; this would be noble; this would be worthy of an American Farmer.

I have a word for those who are officers and managers of these associations. In every thing pertaining to your duties, see that the most rigid rules relating to the awarding of your premiums is observed. Endeavor faithfully to award your premiums for articles of real merit, so that it may never be said, the *exhibitor*, and not the *article exhibited*, received the award. In regard to grain crops be particularly careful to receive evidence of the quantity raised that will stand the test of examination. Remember that there are many who are watching with careful, perhaps I may say with *jealous eyes*, to see how you will conduct your operations. Be careful then so to manage your business in relation to crops, that you can before the world show that you have taken such precautions that when you award a premium, every one will be satisfied that the crop was actually raised for which the premium was given.

A word to the Farmers of New York. The season for your annual shows is at hand. Will you, this year, by your presence, by the exhibition of the products of your farm—your dairy—your orchard—show that you still feel an undiminished interest in the great cause of agricultural improvement? To those who never yet enlisted their energies with their brother farmers, I would say, come up this year to their help. You have your stock, or choice dairy products; why not let them be seen in competion with those of your neighbors and friends? It may be you have better than others: if so, by all means exhibit. But you may feel that others may possibly excell you; by all means *then* exhibit. If any one has better than yourself, you want to know it; for if you have not the best, you surely desire to have; and how, except by comparison and competition, will you ascertain it?

Let me say to every one—you have a duty to perform in relation to the improvements in your own town, in your county, in the state. Have you in every respect discharged those duties as connected with the agricultural associations around you, as you should? If not, let me urge you not to let this season pass by, without giving your personal attention to this subject. Become a member of your County Society—exhibit your articles—enlist the females of your household, which will be no difficult matter—attend with your family—and if you do not at the close of the exhibition admit that you have been amply repaid for your trouble and expense, then I will concede that, for once, I have been mistaken. And do not forget that the State Society has an exhibition, where you may meet the ten thousands of farmers and others who will gladly welcome you to their gathering—show you the fine animals—the choice and beautiful handiwork of the farmer's wives and daughters—the new and useful agricultural implements, that will lighten your toil, and increase the rewards for your labor. And this is not all: your mind will be improved by intercourse with intelligent and liberal minded men—your own happiness will be promoted—your capacity for usefulness increased—and you will return to your own home a wiser man, better to discharge the various duties that devolve upon you in the field of operations which you have selected as the business of your life.

FAIR OF THE STATE AGRICULTURAL SOCIETY.

We hope to see a very general attendance of the best farmers of the Empire State at the great Rural Jubilee in Syracuse. Being held near the center of the State, it is accessible to all. Much will be expected by thousands of strangers from other States, Canada and Europe; let not these expectations be disappointed. For the information of competitors and others interested we annex the following particulars from the show-bill of the Society:

Annual Exhibition at Syracuse Sept. 11th, 12th and 13th, 1849. The amount of premiums offered exceed $6,000. Articles should be entered with the Secretary on or before Monday, Sept. 10th.

The Grounds selected contain about *eighteen acres*, including a fine grove of several acres. The Society's *Large Tents*, with commodious buildings, will be arranged for the exhibition of Fruits, Flowers, Vegetables, Domestic Goods, Implements, &c.

The Executive Committee will meet on the show ground, at the Large Tent, on *Tuesday* at 12 o'clock—and the Judges are desired to be present, as vacancies will then be filled. The *First Day*, (Tuesday, 11th,) will be devoted to examinations by the Judges; and the Grounds will only be open to Officers, Guests, Delegates, Members, Judges and Exhibitors. On Wednesday the Exhibition will be opened to the public, and continue open for two days.

The *Annual Address* will be delivered on *Thursday*, at 3 P. M., on the Show Grounds, by Prof. JAMES F. W. JOHNSTON, of Durham, England.

The President and Vice President of the United States, and the Governors of several of the States are expected to be in attendance. *Meetings* will be held each *evening*, for free conversation on the subject of Agriculture, Pomology, &c.

Articles designed for exhibition will be transported over the rail-roads without charge, and visitors will be furnished with tickets at half the usual rates, enabling them to return at any time during the week of the Show. Fees of Members, $1. Single Tickets for admission to the grounds, on and after Wednesday morning, *one shilling*. Tickets to drive a carriage round the enclosure, $1, *in all cases*, except the inmates are members of the Society. *Badges* for Members will be furnished by the *Secretary* at the *Business Office*. Single Tickets will be furnished at the Treasurer's Office on Wednesday morning.

Exhibitors of Stock should give at least one week's previous notice of their intention, to the person at the Station from which their stock is to be sent: To E. Foster, Jr., Railroad Office, Albany; L. R. Sargeant, Supt. Troy and Whitehall Railroad; G. W. Young, Schenectady; T. M. Francis, Railroad Office, Utica; W. D. Stevens, Oswego; J. B. Dill, Auburn; John Fargo, Geneva; Joseph Alleyn, Rochester; M. Beach, Batavia; Wm. Wallace, Supt. Attica and Buffalo Railroad; P. N. Rust, and J. B. Burnet, Syracuse.

Articles designed for exhibition should be carefully labelled with the owner's name and residence, and may be directed to P. N. Rust, J. B. Burnet, Roger Billings, or B. F. Colvin, Syracuse. *Entries* may be made at the office of the Secretary at Rust's Hotel, Syracuse, and fees of membership paid *after* the 1st of September. On Monday (Sept. 10,) the business office will be open at the Show Grounds, and all entries must then be made there.

Gentleman from a distance, Guests, Officers and Delegates from State or County Societies, are requested to enter their names at the Rooms of the Society at Rust's Hotel. The Executive Committee will be happy to meet gentlemen at their rooms during the show. A meeting of the Executive Committee will be held each evening: and the President and other Officers will take great pleasure in extending every attention in their power to gentlemen in attendance.

Sales of Improved Stock will take place on *Thursday.* Choice animals from the celebrated *Short-horn* herd of Col. J. M. Sherwood, and *Devons* from H. N. Washburn and others, will be offered for sale; and also selected sheep from several choice flocks. J. B. Burnet, Esq., of Syracuse, wlil offer for sale several blood mares, fillies and colts—the mares in foal by the celebrated imported horse *Consternation*, and most of the colts sired by him. W. Thompson, Esq., of Onondaga Co., will offer for sale the well known entire horse *Mambrino*, sired by Thorne's Eclipse, a horse of remarkable speed and power. Geo. Vail, Esq., of Troy, intends to have at the Show a two year's old bull, out of his premium imported cow *Hilpa*, sired by his premium bull *Meteor*, which he will offer at private sale for $300.

The North American Pomological Convention will open its session on Friday morning, Sept. 14th, at Rust's Hotel. Preliminary meetings will be held the day and evening previous. Articles designed for exhition, directed to P. N. Rust, will receive attention. Delegates and others are requested to enter their names at Rust's Hotel, Syracuse House, or Globe Hotel, on their arrival, where notices will be found of the time and place of meeting, and arrangements for the Convention.

Prices of Entertainment. — The keepers of the public houses and boarding houses at Syracuse, have agreed to charge only a specified price for each day's board during the week of the Fair — the different houses ranging in price from 75 cents to $2. This agreement gives assurance that accommodations will be furnished to strangers at satisfactory prices.

CROPS IN THE SOUTHERN STATES.—Corn is generally good, and promises more than an average yield. The wet weather in all the month of July has injured it more or less on bottom or low lands, where corn is usually planted. In Georgia, particularly in the Cherokee country, and in portions of South Carolina, Tennessee and Alabama, the wheat crop is nearly a total failure. Cotton is very backward, and much depends on the character of the season from this to December, in determining the amount of this crop. Since the severe frosts in April, it has doubled in its market value, and made fortunes for a few large holders. A short crop is expected. Rice is doing well; and sweet potatoes promise a fair harvest. Peaches, grapes and figs are scarce, owing to untimely frosts.

Irish potatoes have been worth in Augusta over two dollars a bushel for the last four months; and new apples are just reduced in price to a dollar a bushel. New cheese is selling in the up country at from twelve to fifteen cents a pound.

There has not been a well authenticated case of cholera in Georgia this year, up to the 1st of August; nor can we learn of a case of fever of any kind in the city of Augusta, in July. Within 30 days over 13 inches of rain water have fallen, and thoroughly washed and purified the town. L.—*Augusta, Ga.*

CONSTRUCTION OF THE DAIRY HOUSE.

AMONG the numerous practical papers in the Transactions of the New York State Ag. Society for 1848, one of the most valuable is the Report on Dairies. From it we make the following extract on the construction of the Dairy House; and regret that we are compelled to defer until next month other portions which contain important suggestions to all engaged in butter making:—

"ON the proper construction of the dairy house much depends. It should contain suitable apartments for milk, for the butter in churning, and for the implements. The structure should be such as to secure uniform temperature, both in summer and winter; and when all this is completed, unless the utmost neatness is observed in every utensil and article in use, as well as the floors and shelves of the dairy house, it will be impossible to produce first rate butter.

The following description of a cow house and dairy as used in Holland, is taken from the Farmer's Library, Vol. 1, pp. 94–5:

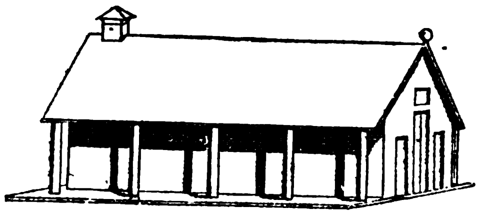
It is a building about sixty feet long, by thirty wide, with a vernandah running three sides of it. The dairy room is sunk below the level of the soil, and is paved with bricks; the sides are covered with Dutch tile, and the arched roof with hard cement. The cow house has a broad passage in the middle, and the cows stand with their heads towards this passage, which is paved with bricks set on edge. Their tails are towards the wall, along which runs a broad gutter, sunk six or eight inches below the level of the place on which the cows stand. This gutter slopes towards a sink covered with an iron grate, which communicates by a broad arched drain, with a vaulted tank, into which all the liquid flows. The gutter is washed twice a day before the cows are milked. The cows stand or lie on a sloping brick floor, and have but a small quantity of litter allowed them, which is removed every day, and carried to the dung heap or the pig sties, to be more fully converted into manures. When the litter is removed, the bricks are swept clean, and in the summer washed with water. The manner in which the cows are fastened is worthy of notice: two slight pillars of strong wood are placed perpendicularly, about two feet distant from each other, so that the cow can readily pass her head between them; on each of these is an iron ring, that runs freely up and down, and has a hook in its circumference; two small chains pass from these hooks to a leathern strap which buckles round the neck of the cow. Thus the cow can rise and lie down, and move forward to take her food, which is placed in a low manger between the pillars; but she cannot strike her neighbor with her horns. The mangers or troughs are of wood, or of bricks cemented together, and are kept as clean as all the rest of the cow house.

The food is brought in carts, which are driven between the cows, whose mangers are thus conveniently supplied; what is not wanted is stored above, and when wanted is readily thrown down to the cows. By this plan much trouble is saved, and one man can attend to many animals. From November till May the cows never leave the cow house. In summer, when they are out, if they are in adjacent pastures, they are driven home to be milked; but if the pastures are far off, they are milked there.

and the milk is brought home in boats; but this is not thought so good for the butter, which is then always churned from the *whole* milk without taking the cream rise. The finest and best flavored butter is always made from the cream as fresh as possible; and to make it rise well, the milk should be set as soon as drawn, and agitated as little as possible. The greatest quantity is seldom obtained where the quality is finest. Where great attention is paid to the quality, the milk is skimmed about six hours after it is set, and the cream then taken off is churned by itself. The next skimming makes inferior butter. It is in fact essential that the dairy house should be as near as possible to the cow house. In Holland the milk is carried in brass vessels, exquisitely clean.

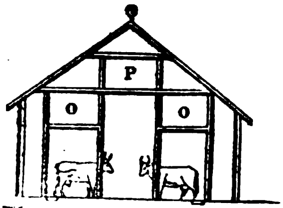
The subjoined plans will convey a clear idea of the Dutch cow house and dairy above described:

DAIRY HOUSE.

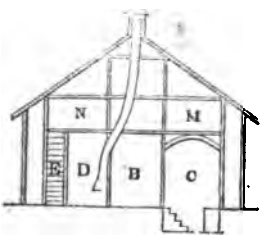


Side View.

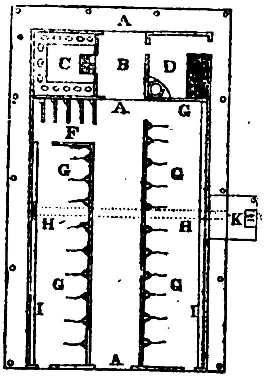
A. A. A. Passage through the cow house and dairy 10 feet wide, paved with brick set on edge. The food is brought along this passage in a small cart, and distributed to the cows. B. part of the passage above mentioned, closed in with doors, and forming a vestibule to the dairy; C. the dairy room in which only milk, cream and butter are kept; it is sunk three feet under the level of the cow house, and covered with a brick arch; it has one latticed window, and several ventilators, on a level with the place on which the milk vessels are set. D. the room where the utensils are scalded, and where cheese is made; in one corner is a fire place, with a large kettle or a copper set. E. stairs to go up to cheese room M., and the loft N. F. Calf pens, in which the calves are tied up to fatten, so that they cannot turn to lick themselves; there is a small trough with pounded chalk and salt in each pen. G. the place for the cows without partitions, each cow being tied to two posts by small chains and rings which run on the posts; the chains are fasttened to a broad leathern strap, which is buckled round the neck of each cow. H. H. two sinks or drains, with iron gratings over them, to catch the fluid refuse from the gutters I, I, which run along each side of the cow house; K. the tank for the refuse, vaulted over with a door L, to clear it out, and a pump to pump up the liquid manure; O. O. in this section are places where the green food or roots are deposited for the day's consumption.



Section of Cow House.



Section of Dairy.



Ground Plan.

With respect to the fluid manure, of which the Dutch and Flemish are so careful, it is generally wasted by the dairy farmer of England—and almost without exception by the dairy farmers of New York. Yet as a manure for gardens, &c., it is very valuable; and in Belgium would return by contract, an average of £2 (or $8.88 per cow) by the year. Four hundred cows would thus produce £800 ($3,552) per annum in this manure alone—good interest for the outlay of constructing the vaulted tanks for its reception!"

Growth of Plants in Confined Air.—It is now well known that a plant flourishes as well or better when grown in soil in a transparent vessel with the external air excluded, than when exposed to its influence. Mr. Leeds, druggist, corner of Atlantic and Court streets, Brooklyn, has a monthly rose in a large glass jar, planted in the usual soil. This jar is hermetically sealed, and yet the plant has flourished, its leaves being of a healthy green, and it grows faster and blossoms earlier than any similar plant exposed to the atmosphere. It has been kept more than two years in this state, having been opened only twice to clean out the grass, which grows, also, more rapidly from the pots exposed.—*Mr. Patridge.*

If the above is correct in all its statements, the experiments, reasons and theories of vegetable physiologists are blown to the winds. It has ever been held, and such we still believe to be true, that plants inhale and exhale the gases composing the atmosphere. Some plants are capable of drawing their whole nutriment from the air, as the Japan Air-plant, and others in a great degree. We should like to learn the advantages of the plowing in of the green crop to enrich soils, if they only derived their contents from the earth. It would be only returning the same materials back, that had just been taken from it, without any gain or addition. There must be some error in the experiment. We should like to know what Mr. Patridge calls "hermetically sealed." We suppose he won't pretend that the jar was melted and the glass joined together like the stem of a thermometer. Nothing short of that is hermetical sealing, or will exclude the air. We presume the jar was closed with a cork, and waxed, which, as to excluding the air, would be an entire fallacy. We should like to be informed, also, how they admitted water for its subsistence during its two years' imprisonment, without admitting air; and where the oxygen was procured to convert the *humus* of the soil into carbon, for the leaf, woody fibre and flower.

Effects of Certain Manures on Plants.—As a general rule, nitrogenous manures force the green leaf and stalk; the phosphates dispose to seed; the sulphates and salt to solidity; and potash to healthy and vigorous growth.

EDUCATION FOR THE SONS OF FARMERS.

BY J. A. KENNICOTT, OF ILLINOIS.

Eds. Gen. Farmer:—Your ever welcome little paper has shown its cheerful August face to its friends in Northern Illinois; and, as an early settler on the "Holland Purchase," I may perhaps venture to say, that I have read with much pleasure, and more hope, your own and your correspondents' remarks on the "spirit of the age," and the necessity of association, and a sustained *esprit du corps* among farmers—and more especially "Agricultural Education" for the sons of farmers. This has long been a growing, though quiet and unobtrusive hobby with me. I have said little about it, because I much distrusted my abilities, as well as my prejudices, and thought it best to bide the proper time; and that time has not yet arrived in the West. We are now engaged in, it is to be hoped, successful attempts, to systematize Common School Education.

But in New York the case is different—common schools are approximating a reasonable perfection—and it will be a glad day for me, and a proud one for New York, when I see an Agricultural College, with a large farm attached, and such a man as David Thomas, or Lewis F. Allen, for instance, at the head of it, in the Western part of my native State—which, even I can remember, as almost a wilderness. Such an institution would be worth all the purely literary ones in the State. It would send out *practical* men—and give tone, and standing, to the profession of Agriculture.

Colleges of this nature—compared with our present irregular and uncertain facilities—would be to the farming and mechanical interests, what medical schools are to the profession of medicine and surgery, cotrasted with the old mode of studying with a country doctor. And yet, it may be said, that some of these village bred students have become eminent physicians. True; and so, up to the present day, have merely "book learned farmers" become our best, and most successful agriculturists. But, how many of his blunders has the silent grave covered, in the one instance—and how much useless expenditure, and how many fields reaped without profit, could the others tell of, in his first attempts to go beyond the usual routine—which a practical education would have obviated?

Your correspondent, "Agricola," is right with respect to the spirit of the age. Useless learning will not much longer form a great portion of "a liberal education," in this utilitarian age. Two or three years thrown away, in the study of dead languages, will not be tolerated in the latter half of this nineteenth century. Life, in our day, is not too long at the best, and many of us, in the most senseless manner, are doing much to shorten its natural period—though scientific medicine has, of late years, wonderfully diminished its liability to accidental termination, and thus aided to swell the current population of our earth. And yet, were we sure of forty years, on an average, can there be any good reason why we should spend a tenth of the flower of our days, in acquiring that which, at the best, is but a barren accomplishment, if not a criminal waste of time, and wear of intellect?

Brother Farmer—my worthy and ambitious friend—you who sent your son to college because you could afford it, and wished to do for him, what your father could not do for you—now answer me candidly, although you are very proud of his learning, has he in reality gained anything useful by his four years' expensive application? Is not this favored son, (doubtless a lad of promise once,) a mere drone?—a dreamy book-worm?—or worse, a self-sufficient ass!—with all his Greek and Latin, and ancient literature, (none of the purest,) and old monkish learned lumber—oppressing and obfuscating the brain, without leaving a trace of useful knowledge, or a single new idea, worth a pinch of snuff.

I will venture a prediction: In 25 years there will not be ten colleges in the Union requiring the study of the *dead languages* as a part of a regular course of education. The reign of sanctified error is drawing to a close. This is the age of mind, and the republic of knowledge, in contradistinction to the empire of mere learning—and the sons of farmers know the value of time, and seldom have much to spare. But should they possess a taste for languages, and great facility in acquiring them, they can study French and German, and find their account in it. These languages are as useful now as was the Latin once; and even the Spanish is worth more than Greek, in these golden days.

Horticulture, though not in name, does now, in reality, form a part of a liberal education; and an English education is incomplete without a knowledge of natural philosophy and chemistry—and a farmer should study geology, mineralogy, botany, entomology, &c.,—and anatomy and physiology, as well as these—provided always that he has time, and taste therefor; and if he has taste, he will find time.—And, what is more, he will find pleasure in learning to know himself, and the nature of things, animate and inanimate, which surround him, and which, for good, or for evil, influence the success of his pursuits.

Agriculture and the Mechanic Arts go hand in hand, and are reciprocally dependant on each other; and commerce ministers to both—bankers and traders are our factors—"professional men," our natural dependants, and our "necessary evils"—politicians (generally demagogues,) *call* themselves our "servants," and *act* as the arbiters of our destiny—ever an age behind the spirit of the times—and why is this? and in what are any of these superior to the farmer? Not in worth—not in usefulness, surely—but in mere learning, and station, which old custom and our folly have, heretofore, accorded them, and pardonable combinations and their "esprit du corps" have enabled them to maintain.

The new race of producers will remedy all this, and the educated Farmer, or Mechanic, will rank, "first in honor," and first in station, as he has ever been first in usefulness and necessity. J. A. K.—*The Grove, Ill., August*, 1849.

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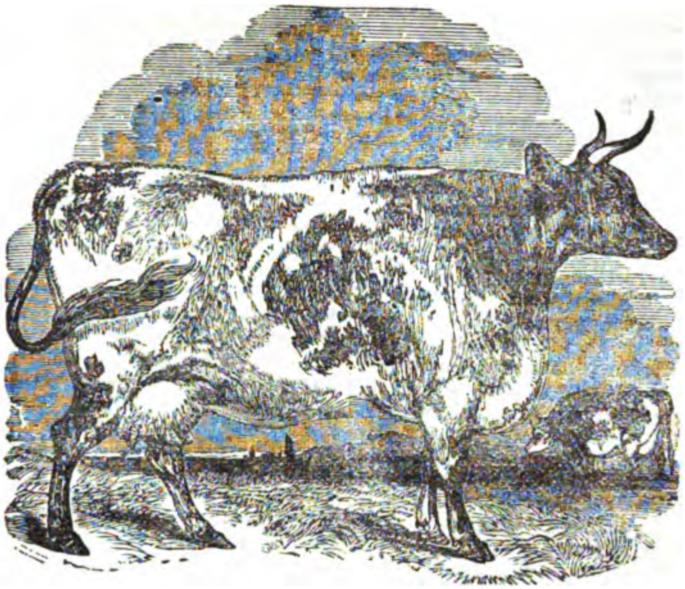
Application of Manures.—The question relating to the application of Manures, appears to be a very simple one. A dead animal left to decay on the surface of the earth, will, as decomposition proceeds, nearly all escape into the atmosphere, in the shape of gases. The same is true of a heap of vegetable matter. Ashes, lime, (in any of its forms,) soda, and all the mineral salts, absorb from the atmosphere, and in wasting away descend and mingle with the soil. Hence in applying animal or vegetable manures bury them in the earth, (unless in a liquid state,) that on decomposing, the elements may in their ascent, be absorbed by the soil and be food for the plants. In the use of mineral manures, place them *on* or near the surface, that on decomposing they may *descend* to the roots of the plants. H.



HOLDERNESS COW.

Improved Stock.

COWS FOR THE DAIRY.—HOLDERNESS BLOOD.

BY ARKWRIGHT.

THE question has recently appeared on the pages of this journal, "What kind of cows shall the farmer keep?" It will doubtless be expected that an answer to this inquiry should suggest, what breed of cows may justly be considered most profitable for the dairy. We have many excellent cows of the native breed; and by persevering and intelligent culture, such as was devoted to this object by Mr. BAKEWELL in England, we might unquestionably have, in all respects, a superior breed of native stock. But such, at present, is not the fact. Our native cows, to a great extent, are in many respects, an inferior breed; and instead of improving our own, we have resorted to foreign stock.

There was a time when the Devons were all the rage. Their color, a rich mahogany red, was captivating; and their neat and finished forms—their beautiful horns—their sprightly, active spirits—conciliated great favor. But they were generally rather small; and as a breed, often not deep milkers. To these the Short-horn Durhams succeeded, and have borne the palm for several years. During this period, a man would almost have been thought beside himself, to have said aught to their disparagement. But the homage paid to them has, in a measure, subsided.—And the fact, becoming evident in the experience of the farmer, that the object for which they were first cultivated in England—"profit for the butcher's stall, rather than for the dairy"—has diminished their value as dairy stock; the disappointed and dissatisfied now venture to urge the inquiry, "What kind of cows shall farmer's keep?"

In the hope, or at least, in the desire to obtain something better than was already possessed, importations from England have been made, within a few years past, of other breeds considered to be valuable. But I have yet to learn, if any thing has been obtained, that promises great and general benefits. The question still recurs, and with increased interest, "What kind of cows shall the farmer keep?"

Now, I have no expectation of answering this question, to the satisfaction of any whose interest and partialities are already enlisted in behalf of some favorite blood. With *such* persons, I have no controversy, no argument, although I may advocate a different breed. I have neither the design nor desire to disparage their favorite stocks; but cheerfully concede to them, whatever of excellence and value they possess. And I readily accord to others, that which I also claim for myself, a perfect right to entertain, each his own preferences. We are respectively, both ready and willing, of all such preferences, to abide the results. I propose, merely, to make a few plain statements, in regard to a breed, with which I have been long acquainted, and which I highly prize; and to state a few, out of many facts, within the compass of my own knowledge and experience. The farmer then can draw his own conclusions. I allude now to the "HOLDERNESS" blood. And here I take the liberty to remark, that I have seen in this county, and in some counties east of us, a breed of red cattle called "Holderness," which I do not consider to be even remotely allied to that blood; nor, indeed, ever to have proceeded from that blood, at all.

In addition to their color, a striking characteristic of this stock is, to be exceedingly thick and full built in the hind quarter; especially the upper part of the thighs, and around the rump; so as often to exhibit a very singular appearance. I have known this stock for more than twenty years; have taken pains to ascertain its origin; and so far as it had any alliance to foreign blood, have, satisfactorily to my own mind, traced it back to stock in no way connected with the Short-horned blood.

Now the Holderness are pied cattle, generally a deep red and pure white, the same as the Durhams; although, as among the Durhams, occasionally one may be entirely red, or entirely white. But the leading characteristic of both breeds as to color is the same —"marbled, mottled, spotted, red and white." The Holderness have exceedingly neat and beautiful horns. And one striking characteristic in their form, so far as I have known them, is, *great length of body*.— As to size, they are about equal to the Durhams, some of them being large, but generally, of finer bone and more delicate appearance.

I first saw the imported bull, "Holderness," about the year 1829. He was purchased in England, as stated, at a cost of $1000, and imported into this country by Gorham Parsons, Esq., of Brighton, Mass., then President of the Massachusetts Agricultural Society. In color, he was deep red and pure white, the red predominating. In form, he was very perfect—deep in the brisket, round in the chest, with fine straight limbs, heavy quarters, and great length of body. His weight in ordinary flesh was 3,000 lbs.

The English Enclycopedia, in speaking of this stock, says—"They are large, fine boned, possess great aptitude to fatten; their beef is fine; they have both size, strength and speed for labor, and their shoulders are well posited for the draught. Being beautifully variegated in color, marbled, spotted, speckled red and white, they make elegant 'Park stock,' (witness the Earl of Chesterfield's dairy;) and in one, perhaps the most important respect, *great milking*, they stand unrivalled; the cows giving from 24 to 36 quarts of rich milk per day."

In a trial, on the farm of the Earl of Chesterfield, of seven cows, consisting of three celebrated varieties, with crosses upon them, the Holderness cow giving 29 quarts of milk, produced 38½ ounces of butter per day, being 6 ounces more than was produced by any other one.

I understand the history of both Holderness and Durham cattle to be this: originally, they were the same stock—large, thrifty, pied cattle, brought over to England from the rich meadow lands of Holland, by the Durham and Holderness farmers. With the latter, *profit from the dairy* was the leading object; and they bred with especial reference to this result. With the Durham farmers, early maturity, rapid, large growth, and aptitude to fatten, was the aim; their leading object being, the "butcher's stall." It has hence resulted, that the leading characteristic of the Holderness cows has been, excellence for the dairy; while, at least one leading characteristic of the Durhams has been, excellence for the slaughter.

In 1830 I purchased from the owner of the imported bull, a full blood calf, and bred from him about ten years. Like his sire he was pied; a deep red and pure white, and very perfect in form. At four years old his girth was 7 feet 3 inches. At five years old his weight was 2,200 lbs. And the length of his body, from where the horn crosses the head, correctly and accurately measured on the line of his back, was 8 feet and 4 inches. His equal in length I never saw, except his imported sire.

For several years, there were brought to him from sixty or eighty to over a hundred cows. And in all my acquaintance with the stock, I never knew an instance where the cow proved an inferior milker. They were uniformly an improvement on the common stock, *in every particular*. I bred from a small, first rate native cow, a heifer that I afterwards sold, that produced a calf each year at three, four and five years old, and gave milk every day during the whole period of the three years. Her calves were purchased before two weeks old, the first at $40, and the others at $50 each. Her mess was 44 quarts of rich milk per day, in the best of the season. One hundred dollars were often refused for her. I bred from him a cow that took the first premium at the cattle show in this county, in 1844, giving 40 quarts of milk per day. A two year old heifer also took the first premium for those of her age, giving 24 quarts of milk per day. I sold at $50, a cow 4 years old, giving 30 quarts per day. Her first calf was dropped on the 1st of November, she being then 2 years old. Her mess the middle of November was 16 quarts per day, and the cream taken from 5 measured quarts of the milk produced 7 ounces of butter, nearly equal to 1½ lbs. per day for her whole mess. Ten pounds of butter per week, for a 2 years old heifer, on the pastures of November, is a result not often reached.

My herd of 6 to 8 cows, kept for many years for family use, averaged not less than 24 quarts per day to each cow in the best of the season. The cow still retained in use, now 15 years old, has given annually from 24 to 28 quarts of the richest milk per day, when the grass has been fresh and abundant. She was milked during the season when she was 2 years old, beginning in May, giving a good mess, although she had never had a calf, and did not calve that season until the month of October. I mention this fact, singular as it is, though perhaps not unprecedented, merely as indicating the tendency of the breed to milking properties.

I have seen no oxen of any breed larger, finer, fleeter, or better in any respect, than those of this stock, and rarely have I seen their equals. And whether they can compare with other celebrated breeds for the slaughter, may, in a measure, be inferred from the fact, that a pair of steers bred by my neighbor, with no other care and keeping than that given to his entire herd, were sold to the drover at 2 years old, for $80; and at 5 years old were sold for the slaughter for $500—their average weight on foot being, as stated, 3,000 lbs.

With these suggestions, I submit to the grazing and the dairy farmer, whether it might not be well to make trial of this stock, either by importing it from England, which might speedily be done, or by purchasing for the dairy, Holderness cows of the *genuine blood*, if at this time such can be obtained in this country. *Rochester, N. Y.*, 1849.

* * *

Subsoil and Subsoil Plowing.—I have sometimes heard the inquiry made, whether the subsoil contains any strength, and what is the use of disturbing it? Now the *strength* of a soil, as the term is generally understood, may depend upon one, two, or three things, viz: the amount of animal, the amount of vegetable, or the amount of soluble mineral matter (of the right kind,) that it contains; or any two of these, or, all combined. But a proper subsoil contains very little, perhaps often none, of the first and the second in a permanent state; but may contain any amount of the third. The percolation or infiltration of water may, however, carry down some of each in solution when applied to the surface. Hence a subsoil may, and generally does contain much of the *strength* of the soil, and doubtless the very elements required for the perfection of the plant, but unavailable to it on account of the impenetrability of the subsoil by the roots of the plant. (See this subject further discussed in some of the former numbers of the Farmer, on "Subsoil Plowing.") u.

EXPERIMENTS WITH NEW VEGETABLES.

1st. I bought a few "Early Emperor Peas" of **Thorburn**, New York, at $1 50 per quart, early in May, and planted 10th of May. Without any extra care, they were ready for the table on 15th June,—35 days. The Early Prince Albert Peas I planted on the 8th of April, side by side, and they were not fit for table use till the 13th of June,—one month difference in time; but allowance must be made for bad weather in April.

2d. I bought, at the same time and place, one "*Early Sovereign Potato.*" Planted 10th of May. They *ripened, sound*, (and tops dried, although in a damp spot,) as early as the 17th of July—2 months and 7 days.

3d. I also got one ear of a new kind (I did not get the name, but will yet do so,) of *sweet* corn, *very superior*, which ripened ten days before the common Early Canada. The Canada is early, but hard and not good, you know.

4th. "Wait's Queen of Dwarf Peas," which I also bought of Thorburn, at $1 50 per quart, prove to be of the *first* quality, and *great bearers*, although the vines do not grow over 9 to 12 inches high with good care,—yet the vines are so stocky that it will not do to drop the peas nearer than a single pea from 6 to 8 inches apart. I think these and the "Early Emperor" pea will be valuable kinds to cultivate here. Yours, Respectfully. **R. G. Pardee.**—*Palmyra, N. Y., August*, 1849.

DRILLING IN WHEAT.

We are convinced that putting in wheat with a drill is not only the preferable plan, but that a great saving of seed may be effected by it, *and an increased produce obtained.* To sow a 100 acre field *broadcast*, as it ought to be, will require 200 bushels of seed: whereas 125 bushels, if put in with the machine, will answer fully as well, thereby saving 75 bushels in 100 acres. The ridge raised by the machine protects the plants through the winter; and in spring, if the roots should be thrown out, many, if not most of them, will be covered by the crumbling down of the ridges. All that would be necessary to render this certain, would be, in the spring, to pass a roller over the field, as soon as the frost was out of the ground and the soil dry, as the pressing down, or compression of the ridges, would necessarily cover up most of the roots that might be found exposed upon the surface, and thus ensure their taking root and growing. Besides the interval between the drills would secure a free circulation of air through the plants while growing, and be particularly servicable in preserving, to a very great extent, the grain from rust. If the cause of this disease be atmospheric, and we believe it is, the free circulation of air could not fail to be productive of the good we have claimed for it.—*American Farmer.*

Indian Corn.—To show the increasing demand for our Indian corn in Great Britain, we would state that by the official report, as it appeared in the N. Y. Shipping List, the quantity of corn exported in June, was 1,287,369 bushels, which is greater by 550,486 bushels than in the month of June, 1847, when prices ranged from 88 to 117 cts. per bushel, and greater, we believe, than was ever shipped in any previous month.

CULTURE OF PLUMS.—THE CURCULIO.

Mr. Editor:—Your correspondent in May number has been very fortunate in discovering, in sulphur, an effectual remedy for the Curculio. I tried the experiment the present season, on plum trees of several varieties, and although not without effect, yet the result was not entirely satisfactory that sulphur is a sure preventive. Perhaps this may, in some measure be owing to the sorts or varieties; mine were the Imperial Gage, Duane's Purple, Washington and others. I find some sorts are far more liable to be stung than others—among which I may name Duane's Purple and Huling's Superb, both fine large varieties. The insect is rapidly increasing here. It is not until within a few years that they have meddled with our peaches; the present season being a scarce one, they are mostly cut off by the insect. Even the common hog peaches are not excused. Your correspondent was right in stating that **Downing** said he never know an instance of their being troublesome in a heavy soil. He does so state, page 267. I can assure him it is no exception here. The abundance of the insects here is owing to the fact that no means are employed for their destruction. Many are ignorant of the real cause of their plums falling off, and farmers are usually too busy to attend to it. The general lack of Agricultural and Horticultural knowledge is another cause of this evil. If such works as the Genesee Farmer were more generally introduced into families, an interest would be awakened, that would have the effect of making people bestow a little extra trouble for the sake of having fine fruit.

J. H. W. will oblige by stating the particular time he applied the sulphur, with any other information he may possess on the subject. **Wm. Wylde.**—*Vermillion, Erie Co., Ohio, July*, 1849.

Remarks.—We have no faith whatever in *sulphur* as a remedy for the Curculio. Wherever practicable stone fruits should be planted in a separate enclosure, and pigs and poultry be kept among them to consume the fallen fruit. This in a short time, will destroy the insects. The Curculio has not done as much mischief as usual in this vicinity, the present season. Our plums and apricots are very fine and abundant. In small places, paving around the trees answers a very good purpose.—**Ed.**

BOTANICAL TERMS.

Messrs. Editors:—I wish to express my decided disapprobation of the use of the terms *male* and *female*, to distinguish the two classes of organs that are found in flowers, called the organs of fructification. Whatever cause may have operated with the founder of our present system of Botany, for the introduction of these terms, that cause does not now exist. There is not the shadow of a necessity for the continuance of their use in a science now abundantly supplied with technicals; the terms *staminate* and *pistillate* answering every purpose that can be answered by the others. The teacher who undertakes to instruct a mixed class of intelligent, and perhaps, inquisitive pupils in Botany, will find it very difficult. If these terms must be retained (for which I can see no necessity,) let them be confined to those treatises that are designed exclusively for the use of the learned. Nothing should be admitted into a text-book for schools, or a reading-book for families, which can awaken the least shadow of indelicacy, or wound the most delicate sensibility. **H.**

THORN HEDGES.—THE OSAGE ORANGE.

BY J. DINSMORE, OF KENTUCKY.

Messrs. Editors:—In the June number of your valuable paper you invite correspondents, who have had experience in growing hedges to communicate the results. I have been making experiments for several years, principally with the Osage Orange, with the most flattering prospects of success.—Among the plants I have seen tried for hedging are the Cherokee Rose, the Osage Orange, the Honey Locust, the Hawthorn and the Buckthorn. The former, in the States south of Tennessee, makes an excellent and highly ornamental hedge. I have tried it here, but it is too tender for this latitude. In Louisiana it forms a hedge, which is impassable to the wildest animal, but the planters complain that it affords a harbor for multitudes of rats, snakes and wasps. The objection to the Honey Locust is that it is of too large a growth and difficult to be kept down. The Hawthorn is devoured by insects, and soon perishes.

The Osage Orange I consider the *beau ideal* of hedge plants. It is a native of Louisiana, and is stated to be hardy at Boston, and will undoubtedly succeed from the Gulf of Mexico to the Lakes. In my opinion it would be difficult to estimate the value of this plant to the United States too highly. Englishmen have confessed to me, that they have no plant in Europe to be compared to this, for hedging purposes. I know of no plant, excepting the willow, that is more easily propagated. A piece of the root 3 or 4 inches long planted in a bed, with the top a little below the surface, will produce a plant, in one season, from 2 to 6 feet high.

There is some difficulty in growing plants from the dry seeds, without preparation. If planted dry, not one in twenty will grow. When taken fresh from the half decayed ball or fruit they will grow as readily as peas. If dry, soak them a few hours in milk-warm water; pour off the water and stir in fresh ashes, and let them remain moist three or four days.—Then sow in drills an inch deep in rich and well prepared ground, and when the plants appear keep them clear from weeds. I find it is better to let them remain two years in the nursery. They then grow off vigorously, and give a good supply of roots for planting. When you wish to plant in hedge, cut off the top two inches above the ground, take up the plants, cut off the principal roots, leaving the main tap root 8 inches long. Plant in two rows from 6 to 12 inches apart, and keep the ground clean. The spring following, cut down the plants to 6 inches. The second year leave them a foot high and leave a portion of the largest shoots to be interlocked with each other. The third year leave them 2 feet, and the fourth 4 feet high. After this you may regulate the height to suit your fancy. The hedge will then present a dense mass of shoots covered with thorns, almost as sharp as needles, and averaging a thorn for every inch in length of the branches.

I have not observed that any insect preys on this plant, but Dr. White, of Ohio, informed me that the largest cocoons he had ever seen were from silk worms fed on its leaves. I have supposed, that its exemption from injury by insects was owing to the acrid milky juice, which the leaves exude. I have a hedge around my vineyard, a part of which is of four years growth. Not a plant has died out, and it presents an impenetrable mass of branches, thorns and glossy leaves, which is truly beautiful. It will afford a most efficient protection to a fruit garden or vineyard, and I cannot conceive a more embarrassing situation for a vagabond, than attempting to pass through such a hedge with a fierce dog at his heels.

It is probable that the tops of the plants would be killed by the frost in New York the first winter, but that would do no permanent injury. The wood of the Osage Orange is exceedingly strong, elastic and durable, and is used by the Indians of the West for bows, whence the French name of *Bois d'Arc* by which it is known on Red River. J. D.—*Boone County, Ky., July,* 1849.

"POSTS INVERTED."

Not long since in conversation with a gentleman on this subject I stated some facts which he said he would not believe, even if he should see them himself; that there was no reason, no philosophy in the thing, &c.; nor would he listen to any attempt at an explanation. Yet this man boasted of being a philosopher!

First, the facts. I have seen hemlock stakes set in the ground, some in their natural and some in an inverted position. After a few years the inverted ones were found to have decayed on the *outside*, while the central part was sound and dry, even below the surface of the ground. Of the others, not only had the part that entered the ground decayed entirely, but the end was hollow several inches above; the central part having "rotted out." Again: a gentleman on whose word I can rely, told me, that he had seen old trees lying on a black ash swamp, some with the root or lower end in water—others with the top or upper end, where they had lain for years. On chopping the same for fuel, the former were found to be saturated with water and partially decayed *above* the ordinary water level; the latter were sound and comparatively dry, even *below* the surface of the water.

Second, the philosophy; the theory. It is a well established fact in vegetable physiology, that the sap of a tree in ascending from the root to the branches, passes up through the *alburnum*, or sap wood, (and the whole body, or stem, of the tree has been such, each concentric portion in such succession,) and having undergone the digestive process in the leaves, returns between the wood and the bark of the tree, depositing in its course the substance called *cambium*, or the new wood. Hence the theory explains the facts. The moisture passes naturally in the direction of the sap. *Down East, July,* 1849. H.

Burning Straw in the Field.—If the soil contains already a superabundance of vegetable matter, no advantage is gained by spreading the straw over the field, except for the mineral elements it contains. If the straw, therefore, should be burned, and the ashes spread evenly over the field, the soil would sustain no real loss from the absence of the other elements it contained, and the next crop would be equally good as if the straw had been mixed with the soil; for all that portion of the straw, (or the elements that composed it,) that escaped into the atmosphere during the combustion, will be derived again from the same source by the growing crop. As there are, however, portions of every farm that would be benefitted by the addition of the straw, the practice of burning it may, under any circumstances, be considered at least injudicious. H.

Wool and Wool Growing.

WOOL. — WEIGHT OF FLEECE, CARCASS, &c.

BY W. D. DICKINSON.

Messrs. Editors:—In late numbers of your paper I notice some accounts of large fleeces, taken from Merino sheep and their grades. Now, this is all right, so far as it goes; but, in order to form a correct opinion of the value of the animal, we should know not only something about the size of the sheep, but the value of the wool per pound. I think it will not be disputed that the cost of keeping is in proportion to their weight, or that one sheep weighing 120 lbs. will consume as much fodder as two of the same age weighing 60 lbs. each. I usually winter about 200 sheep. My wethers over two years old, together with my oldest and coarsest ewes, are separated from the rest of the flock in the fall and fattened, and generally sold previous to shearing. The remainder, consisting of stock bucks, ewes, yearlings and two years old wethers, generally average about 4 lbs. per fleece. When I have sheared my fat sheep, the average has been from 4½ to 4¾ lbs.

My sheep are all numbered, classed and registered, so that by referring to my book, I can ascertain the connection existing between any individuals—their age, grade of wool, weight of fleeces and carcass, &c., for the last three years.

I sent my clip of wool last season to the wool depot at Kinderhook, where it was assorted and sold as follows:—Super 60 cts. per lb.; Extra 46; Prime 39; No. 1, 35; No. 2, 33; No. 3, 26. The last grade was sold in October, which will account for its selling so much lower than No. 2. The remainder was sold in February, at the same time and to the same individual. My present clip I sent to the same place, where it remains as yet unsold. My average weight of fleeces this year, with the value per fleece at last year's prices, is as follows:

	Weight.	*Price..*	*Amount.*
Extra,	3 lbs. 8 oz.	46 cts.	$1 61
Prime.	3 15	39	1 54
No. 1,	4 1	35	1 72
No. 2,	4 3	33	1 38

For the last three years I have weighed my sheep as the fleeces were taken off, and find the live weight in proportion to the weight of fleece between the different grades nearly the same—although the difference between individuals of the same grade is frequently great. In 1847 I sheared two sheep of the same age and grade, and wintered in the same yard; the difference in the live weight was only 3lbs., whilst that of the fleece was 3 lbs. 3 oz.—one shearing 3 lbs. 3 oz. and the other 6 lbs. 6 oz. I find that yearlings consume the most food and produce the most wool in proportion to their weight, and breeding ewes the least.

It will be seen that my finest grades, although they yield the lightest fleeces, produce the most money. They are likewise equally hardy, and raise as many lambs as the coarse grades. I have spared no pains in having my wool clean and in good condition. It was examined this year by an extensive dealer in wool, and one who has perhaps purchased more wool for the last 10 or 15 years than any other individual in this section of country, who said it was in the best condition of any he had ever seen in Western New York. W. D. D.—*Victor, N. Y., Aug.*, 1849.

MERINO SHEEP. — MORE LARGE FLEECES.

BY REED BURRITT.

Messrs. Editors: — I have been calculating to send you my annual report concerning my Merino sheep, the weight of their fleeces, &c., for some time, but being cumbered with many things have deferred it. On seeing a communication from Mr. Embree, in your last number, (page 187,) in which he requests that if any had come up to 5 lbs. per head, they would make it known through the Farmer, I thought that I would wait no longer.

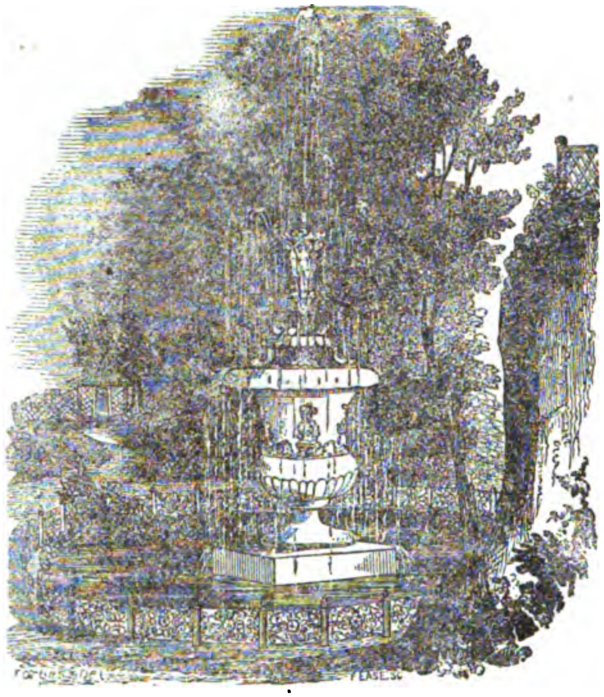
Last spring I sheared 25 *full blood* Merinos, which averaged a trifle over 5 lbs. per head, being no more than a common yield. My breeding ewes averaged 4 lbs. 13 oz., and my ewe lambs averaged 4 lbs. 11 oz., and a few bucks, which gave of course heavier fleeces, brought the whole over 5 lbs. per head. I have about 115 that are high crosses of the Merino with some Saxony, and some native, which gave lighter fleeces. I had 236 fleeces in all, which weighed 1,044 lbs., and I sold it for 35 cts. per lb., cash. I am calculating to increase my flock to 300, and have them all pure bred Merino, as soon as I can raise them myself—though the frequent applications that I have for my full bloods prevent my increasing my flock as fast as I should if I could keep the whole; and when I sell my ewes for from $5 to $10 per head, I must sell the good ones, and keep the poor ones, which prevents the improvement of my flock. Could I keep all my best, and sell the poorest, I would soon have a flock of 300 that would average 5½ lbs. per head. One ewe at my last shearing, with a lamb by her side, gave 6¾ lbs., and one ewe lamb (yearling,) gave 6 lbs. 6 oz. The buck that I have improved from for several years past, shears, when thoroughly washed, 8½ lbs., a sample of which I enclose—also a sample of the ewe lamb that sheared 6 lbs. 6 oz.

In December, 1847, I purchased a buck lamb of **Stephen Atwood**, of Watertown, Conn., having the choice of his entire flock. His dam sheared 6 lbs., and his sire 10 lbs. 7 oz. I of course calculated on a 10 lb. fleece when he came to maturity; but I was unfortunate in getting him home. He was shipped in April, 1848, but on account of breaks in the canal, and other hindrances, he was 22 days on his passage, and in a small cage; he lost his appetite, got very poor, has grown but little since, and I fear that he will never be common size. His first fleece weiged 7 lbs. 14 oz., well washed on the back; his second weighed only 7½ lbs. I feared his being so dwarfed would affect his stock, but it does not; his lambs are large enough, and I think the best that I ever saw. We had 133 of his getting, and raised 130 of them. I paid Mr. Atwood $50 for him.

I cannot say, as Mr. Embree does, that I have paid no high prices, as I have paid for two bucks $50 per head; for 14 ewes, $25 per head; for 11 ewes, $20 per head; and for some 20 ewe lambs, $10 per head. For five years past, I have spared neither pains nor expense — calculating to have as good a flock of pure blood Merinos as could be found any where. R. B. — *Burdett, Tompkins Co., N. Y., August*, 1849.

* * *

Wool Growing is becoming an extensive business at the West. We have accounts of large and profitable clips, the past season, in various sections of Ohio, Michigan, Illinois, Wisconsin, and other western and south-western states.



ORNAMENTAL FOUNTAINS.

BY J. VICK, JR.

> "And in the midst of all a fountaine stood,
> Of richest substance that on earth might bee,
> So pure and shining that the silver flood,
> Through every channel running one might see."—Spencer.

From the time when a "river went out of Eden to water the garden"—that earliest and best of gardens, in which grew "every tree that was pleasant to the sight and good for food"—running water has constituted an important feature in ornamental gardening. Although the skill of man has been exerted to its utmost in devising means to adorn and beautify the garden and park, that skill and exertion has produced nothing that imparts such life, such a sense of sympathy and companionship, as the sight and sound of moving waters. In the trees we hear the voice of nature loud and deep—the shouting of the tempest in their lofty tops—and feel its sublimity: or its shrill solemn voice in the firs, depressing us with a feeling of loneliness. But in the moving and rippling of waters there is a spirituality—an angel's voice—that soothes the feelings of the beholder, and gives life and pleasure to all within the sphere of its attraction. Take from the above garden view the fountain, and how tame and lifeless it will appear—the matter without the mind, the body without the soul. Running water in the form of cascades or jets not only gives animation to the scenery, but in warm climates is almost indispensable, as well from the refreshing sense which the sight of running water always affords, as from the actual coolness it diffuses around.

FOUNTAINS—ANCIENT AND MODERN.

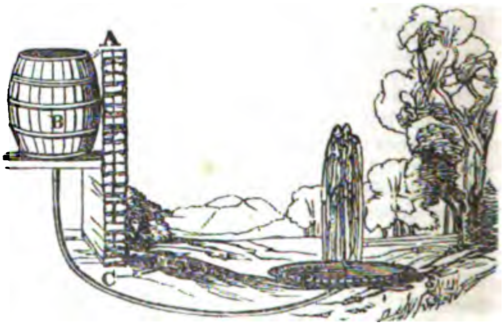
Artificial fountains and jets are of great antiquity, and were highly esteemed by the ancients, who showed the greatest skill in their design and decoration. Sometimes the pipes terminated in statues of men, women, animals, birds, fishes and gods, and from them the fluid spouted high in the air. Various automata were often put in motion by mechanism concealed in the base or pedestal. The water issuing from these fountains was perfumed on particular occasions. This fact is alluded to by Lucan in the following passage:

> "As when mighty Rome's spectators meet
> In the full theatre's capacious seat;
> At once by secret pipes and channels fed
> Rich tinctures gush from every antique head;
> At once ten thousand saffron currents flow,
> And rain their odors on the crowd below."

For the last century the taste for water-works has been on the decline. The manufacture of fountains of cast iron, recently commenced, and the low price at which they are now furnished of the most beautiful patterns, is favorable to their general introduction to public favor. The beautiful specimen at the commencement of this article costs $35, and the one on the next page $15. We would advise none to be frightened, however, even at this expense, as we will tell them in the proper place how to make a fountain so beautiful as to be worthy the notice of all, and yet so cheap as to be within the means of the poorest.

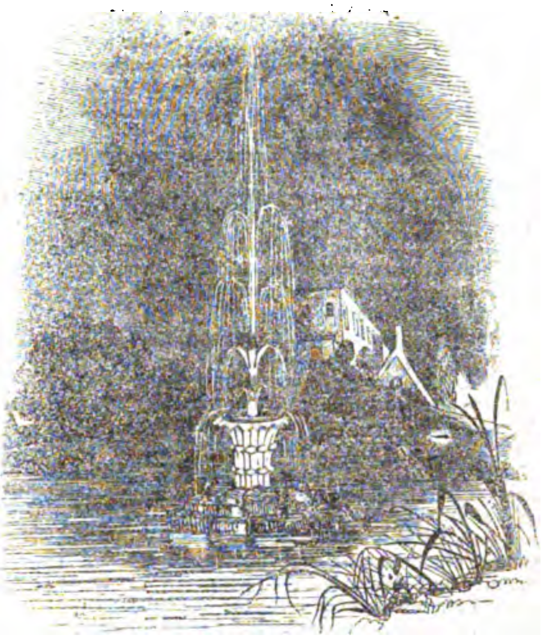
We know of no part of ornamental gardening so sadly neglected in this land, and while such an increasing interest is manifested by our countrymen for improving and embellishing their homes, we hope the fountain—so simple—so beautiful—so grateful to almost every sense—will not be forgotten. Every village favorably situated for water should have its public fountain. We know of many in this section of country where fountains could be kept constantly playing, without expense or trouble, when once constructed.

MODE OF CONSTRUCTION AND COST.



Many are deterred from constructing fountains from erroneous ideas in regard to expense, a notion that a great quantity of water is needed, and ignorance of the proper mode of construction. It shall be my object to present the readers of the Farmer a little light on this subject. To those who have a natural head of water, the directions will be applicable with the exception of the water-butt or cistern, and they will also be saved the trouble of raising water.

Place a barrel near your well or at some place convenient for filling, and at a considerable elevation. It should be out of sight—as behind a wall (as seen in above figure,) or over an arbor, or summer-house, hid by vines and creepers—and having a lead pipe from the bottom leading to the place designed



for the fountain. In the preceding diagram A is section of wall, B butt, C lead pipe under ground. Place the pipe low enough to be out of the way of frost, and as straight as possible, as all elbows and bendings diminish the force of the water. The height of a jet does not depend upon the quantity of water, but upon the height of the head or barrel. By having the jet close to the surface of the ground the stream of water is lengthened; for if there was a design of two feet, or any other height, it would be so much taken from the height of water. The rise can be added to by sinking the ground into a hollow around the fountain. The pipe at the fountain end must be contracted to one-fourth its size, and a tube of a few inches in length attached, and the water will rise nearly as high as the head. The barrel can be filled by a force-pump, or in any way preferred. In preparing the basin for a fountain—first, choose a location either in the garden or in the "*lawn*" or "*yard*" in front of your house; drive a stake for the center, and with a line and stick sweep a circle the size you wish the basin—take out the ground from the center outward, forming a basin ten or twelve inches deep. The earth taken out should be removed, as a raised bank around a fountain does not improve it. By cutting the circle through the turf you will have a handsome grass edge around the basin. The bottom and sides may be lined with water cement, which will be but a trifling expense. In using cement, mix one-third clear coarse sand with it, and put it on with a trowel, having first rammed the ground hard. Next get clean white pebbles to cover the inside of the basin, and surround the pipe with stones, no matter how rough, in the shape of a cone, something like the pile of rocks forming the base of the above figure.

About twenty-five gallons of water a day is sufficient to supply such a fountain, and as it can be stopped at any time by simply turning a cock, which must be placed in the pipe, it need not play in cool or stormy weather, and only at such times as may suit the convenience or taste of the owner. In this way a very small amount of water will answer.

In regard to the COST—to the man who has a little time on his hands, and a little wits in his head, the cost of the pipe will be the principal expense. Lead pipe one inch in diameter, which is the proper size for a small fountain, can be purchased for less than a shilling a foot; so if the water has to be conducted forty feet the cost will be but \$5. If the beautiful little design above is added the expense will be increased \$15—the price charged for the fountain.

WATER JOKES.

IN concluding this article perhaps we could not do better than to give the following from Chambers' Edinburgh Journal, showing how completely water is under the control of man, how willingly it does his bidding, and administers alike to his wealth or amusement, when he rightly understands the laws by which it is governed.

"At Easton, in Oxfordshire, in the gardens of a certain worshipful gentleman, are the most artistic water ingenuities it has been our lot to meet a description of as existing in this country. They even drew down the marked approbation of royalty itself. On approaching the spot, a venerable hermit rose from the ground, and after entertaining us with a "neat and appropriate speech," sank down again like a Jack-in-a-box. There was a small rocky island in the midst of a lake, which was full of watery tricks. The visitor was politely invited to walk up and view this spot; and after satisfying his curiosity and proceeding to walk down again, the fountaineer would bob down, turn a cock, and send, we dare not say how many, *jets d' eau* flying on all sides of the victim, one stream having for its object his legs, another his loins, another his head. After this funny reception, he was conducted to look at a spaniel hunting a duck by the force of water; the automata diving and pursuing each other by turns. Beyond was the grotto: a hedge of sparkling jets of water rose from the ground to guard it, mimic cascades foamed down its tiny cataracts, and countless streams shot up, and appeared to lose themselves by being caught in their return, and not suffered to fall down again. Here too, a nightingale discoursed very liquid music, and an arched jet of water played with one another, and now and then with the visitor, all hope of egress being destroyed by the sudden pouring down a heavy rain in the doorway. The sport this caused was thought to be well worth the wetting. Probably the magnificent gardens at Chatsworth are the only places where anything at all similar to the above is now to be found. There are some practical wet jokes even here; and country bumpkins in their native innocence, may be found willing to pay a visit to the weeping tree. This visit is never repeated."

REMARKS.—The author of the preceding article has heretofore furnished us several valuable papers which have been published over the signature of "RUSTIC." Confident of his ability to add interest and value to its pages, we gladly welcome Mr. VICK as a regular contributor to the Farmer.

SINGULAR MORTALITY AMONG SHEEP.—INQUIRY.

MESSRS. EDITORS:—I have a mystery that I cannot solve in farm operations, and wish to call the attention of some of your wool-growing correspondents, thinking perhaps some of them may have had *luck* of the "*same sort.*" On the 16th of July, at evening, I turned a flock of sheep, bucks and wethers, from a grassy fallow of thirty acres—the flock not being large enough to keep the grass down. The next day at 2 o'clock P. M. I turned in about 120 ewes and 80 lambs. On the 18th they were seen, and turned out about sunset, 28 ewes having died in about 30 hours. I have been unable, as well as all my neighbors, to ascertain the cause of their death. No poisonous plant could be found, and the idea of poison seemed unreasonable, as the first flock had been confined to the same field for some three or four weeks previous, and were again put in about two weeks after—not an individual manifesting the least symptoms of disease.

The ewes had been kept in a field about one-half in fallow, the other half in clover, good feed, and all the sheep healthy and in good condition. They were immediately turned back to the clover field, and no signs of disease have been seen since they were taken from the *field of death.* The dead were found scattered promiscuously over the field, most of them remaining in a position of rest, with their feet under them. I am unable to describe the symptoms or the effects of the disease upon the body, as none of them were examined. There were no visible signs of diarrhœa, or discharge of mucus from the nose. I can find no disease described by any author that I have yet read, that rages with such fearful mortality. If any of your numerous readers have had any such *experience,* and ascertained any cause, I should like to hear from them through the Farmer, if you can spare a corner. NORMAN J. KELLOGG.—*Avon, N. Y., August,* 1849.

WARTS ON COWS' TEATS.—We give the following from "Allen's Domestic Animals," in answer to an inquiry on the subject by a subscriber to the Farmer at Cazenovia, N. Y.:—

WARTS are of two kinds; the first, on the outer skin, may be removed by rubbing with camphorated olive oil. The others penetrate into the flesh, and may be removed by a ligature of fine twine, or silk, or india-rubber drawn into a string, and tied tightly around the wart, which falls off in a few days.

Remedies.—Nitrate of silver, (lunar caustic,) applied to the wart, will remove it, but it produces a sore.

Apply a strong wash of alum.

Rub with the juice of milk-weed.

Poultice with grated carrot.

Cut off the wart with sharp scissors, when the cow is dry. It will bleed little, and soon heal.

SORE TEATS may be healed by rubbing with goose oil, cream, new milk; or make the same applications for it as for caked bag. The bag and teats should be well cleansed with warm soft water, if to be followed by any ointment.

The following application is recommended by Youatt: One ounce of yellow wax and three of lard; melt together, and when cooling rub in one quarter ounce of sugar of lead, and a drachm of alum finely powdered.—*Ib.*

CATTLE TRADE OF THE WEST.

AN interesting account of the cattle trade of the Western States, especially that portion of it which centers in the Scioto Valley, Ohio, is given in the annexed extract from one of Mr. MANSFIELD's letters to the Cincinnati Atlas. Though a very important branch of our productive industry, the *modus operandi* of this business is not generally understood. It is, however, conducted with much system, and is yearly becoming of greater extent and importance. Mr. M. says:—

"While at Yellow Springs, I saw a fine drove of cattle, which were driven from the Wabash. I was told that about twenty-five thousand head a year passed that point—that being a common route from Illinois and Missouri to the grazing lands of Madison and Fayette. This is an immense business, and employs four classes of persons.

1. The raiser of cattle, who sells his animals at one or two years old, or even three, to the grazer. The raisers are chiefly in the great prairies of Illinois, Missouri and Iowa.

2. The grazers are chiefly the owners or renters of the great pastures of Madison, Fayette and Union counties, Ohio.

3. The cattle feeder, (who is the corn raiser,) who takes the cattle in the autumn, and feeds them on corn till they are fat enough for the markets of the Atlantic cities. Sometimes two of these occupations are united, but not often.

4. The fourth class of business which arises out of the cattle trade, is that of the banker, who furnishes the funds. The banks of Chillicothe, Circleville, Columbus, and Xenia, taken together, do more of this sort of business than any other. It is the most profitable banking business done in the State. The cattle trader about to buy a drove of cattle to fat with his corn, applies to the bank for a loan. For this he gives a bill of exchange on Philadelphia or New York, at four months, which the bank discounts—receiving the funds when the cattle are sold, and getting both interest and exchange, which brings the profit to about ten or twelve per cent. But this is not all. The cattle feeder receives the notes of the bank, which are paid to the grazer, who pays them out for cattle through the entire Western States. In this manner, the circulation of the bank is kept out. These transactions are as truly commercial and safe as they can be possibly made; for they are all based on the actual sales of cattle in the Atlantic cities. I suspect the sales of cattle in the counties of Ross, Pickaway, Franklin, Madison and Fayette, amount to near a million of dollars, and which, therefore, supply that amount of bills of exchange."

EFFECT OF SALT ON WHEAT.—The Rochester American, of a recent date, says:—Some of our readers may recollect that last fall we mentioned an experiment made by Mr. John Park, of Gates, by sowing a barrel of salt to an acre upon a summer fallow. The ground was plowed once the preceding fall, plowed again in May, and salt sowed thereon as above; and afterwards plowed twice before seeding. On the 1st and 2d of September, wheat was sown, two bushels to the acre. The crop has just been harvested, and Mr. P. is confident will yield 40 bushels to the acre. The berry he considers equal to the finest English wheat.

Spirit of the Agricultural Press.

Test for good Limestone.—The best lime for agricultural purposes is that which is lightest, whitest, and softest to the touch; the purest and strongest lime is always found the lightest. If then by calcination limestone loses much of its weight by the process; if the lime-shells are extremely light, and require, for slacking them fully, a large portion of water; if they are a considerable time before they begin to fall; if, during the process of burning, the limestone is not disposed to run, or become vitrified; if it increases very much in bulk by slaking, and the lime is of a pure white, and fine and light to the touch, it may be set down as very good, and should be used in preference to other lime not possessing the same qualities.—*English Paper*.

Drill Husbandry.—At one of the celebrated sheep-shearings that used to be given by Mr. Coke, of Norfolk, afterwards Earl of Leicester, at which hundreds congregated and remained for days together, he mentioned a fact that is not generally alluded to, as being founded on the observation and practice of his manager, Mr. Blaikie, a man of great sagacity. It was that a field with a southern aspect, if rich, should be drilled north and south; but if DRY, and in want of shade, should be drilled east and west. It is easy to see that, in the latter case, the crop would shade the land from the influence of the sun, and counteract the effect of drought.

Potatoes in India.—The potatoes from Bombay, Darjeeling, and Cherra Poonjee seed, were wonderfully fine and healthy, and to enable the public to form some idea of the state of perfection this grand and staple vegetable has been brought to in this district, it is here recorded that 40 potatoes out of one garden weighed 20 lbs. The skin of all delicately white and fine, and every potato free from knots. —*Journal of the Agricultural and Horticultural Society of India, May*, 1848.

Wool Growing in Western Pennsylvania.—The amount of wool annually grown in Washington county exceeds one million pounds. In 1847, according to the Washington Reporter, the clip averaged 40 cents per pound, and brought *four hundred thousand dollars!* During the last year the average price was not so great, and, perhaps, will not be so great this year. The most of the wool grown in this State is of very fine quality, and some of it, probably, the finest grown in the United States. The farmers of Washington, especially, have taken great pains, and spared no expense, in improving their stock. The average price of the clip this year may not go above 30 cents per pound; but many farmers who have choice flocks are holding on to their clips, and asking from 50 to 60 cents per pound.

Besides the wool grown in that vicinity, Washington is the depot for a great deal of the wool grown in the adjoining counties of this State, and the bordering counties of Ohio, which is brought thither for sale.—*Pa. paper*.

Vermont and Wisconsin Sheep.—Timothy Underwood, of Hardwick, has had this year from his entire flock of fifteen ewes, twenty-nine lambs—all having had twins but one; twenty-eight of them are alive and doing well—one having frozen to death. Wisconsin papers please copy.—*North (Vt.) Star*.

The Waukesha (Wisconsin) Democrat checkmates the Vermont man thus:

"That's nothing. Jeremiah Older, of this county, has this year from his flock of five ewes and seven bucks, *seventeen* lambs, and none of them were frozen to death. Will the North Star please copy?"

Cotton Mattresses.—Having been applied to several times during this warm weather for information respecting the mode of making cotton mattresses, we think it would be proper to republish an article on the subject, which was in the Farmer last summer, as follows:

First Cost of Cotton Mattresses. Thirty lbs. of cotton, at eight cents per lb., $2 40; twelve yards of ticking at a shilling a yard, $2; labor, thread, &c., &c., $2 75 more, making a total of $7 15.

Mode of Making. Take layers of cotton batting, and place them between envelops of calico or muslin. An improvement has been suggested of gumming or glazing each side of these layers, as wadding for cloaks is prepared. A patent has been taken out for making them with a layer of hair between the battings; whether it is much of an improvement, we cannot tell.—*Maine Farmer*.

Profits of Farming.—The July number of the American Farmer contains a highly interesting communication on the above named subject, from Edmund Ruffin, Esq., of Virginia, author of a well known and highly esteemed work on "Calcareous Manures," and one of the most distinguished practical farmers in the Ancient Dominion. Successful in all his own efforts in the renovation of old exhausted lands, Mr. R.'s experience is the more authoritative, as well as interesting; and his account is a very encouraging one of the profit that may be actually realized in the intelligent pursuit of those rural occupations, which, in other respects, are known to yield such goodly returns of health, independence, and happiness. Mr. Ruffin gives the results of his farming operations for five years, the profit and loss account of which is as follows: For the first year, there was a small loss of 27-100ths per cent.; second year, a net profit of 8.16 per cent.; third year, a profit of 12.81 per cent.; fourth year a profit of 22.86 per cent; fifth year, a profit of 20.10 per cent. The average profit for the whole five years years was nearly 13 per cent.; and all this exclusive of the enhanced value of the property from improvement of soil, &c., &c. We suppose it is not every farmer who can do so well as this; but industry, intelligence, and business habits and principles, always command success in town and country.—*Philadelphia North American*.

English Shows.—The agricultural show at Southampton was a remarkable occasion. I met a number of Americans on the ground, and was told that there were several others looking for me; but it was exceedingly difficult to find one, unless by mere accident. There were a great many farmers' wives and daughters, as well as a great many of the noblesse, in the yards, inspecting the implements and cattle, with catalogues in their hands, and showing the remarkable points of the animals, with as much skill and sagacity as if they had been experienced breeders of live stock; some of them are, and also competitors for the premiums. One of the largest exhibitors of farming implements, was a woman who had succeeded to her deceased husband's concerns, and manages a large establishment with much success.

The English women and ladies, to their praise be it spoken, while they are as far from anything indelicate as any persons I have seen, have no sickly appreciation of modesty, and do not die at once at the sight of a cow or a bull. The show occupied four days. On Tuesday, was the trial of implements; on Wednesday, was the exhibition of implements and machinery; on Thursday, the exhibition of cattle and implements; and on Friday, the public sale. Half a crown was required for admission to the yards, from Wednesday to Thursday noon, and after that a shilling; and the sum received for admission, during those days, was £3,000, or $15,000.—*Colman's European Life and Manners*.

A Cow worth having.—Mr. George B. Brinkerhoff, of Owasco, made from one cow, five years old the past spring, 18 lbs. 2 oz. of butter for the week ending Saturday, June 30th. This quantity she averages during the summer season. The summer she was three years old, she made 18 pounds per week, and she would have made more for the above week, but for the fact that three of the very hottest days of the season were included in it. In flavor and color, it was equal to any we ever ate, and we doubt if it be excelled by the celebrated Orange county butter. The cow can be bought for $100.—*Auburn Journal*.

Bloated Cattle.—A friend of ours, who, by the way, is a person of much observation, and, withal, has had considerable experience in the management of neat cattle, informs us that he once noticed one of his young cattle much bloated, evidently in great agony, and groaning loudly at every breath. His first movement was to cut off a small portion of her tail. He then administered a strong dose of thoroughwort, with a small quantity of tansy, which immediately started the wind; a second bottle was then poured down, and the animal turned into the yard, and driven briskly about for a few minutes, when the bloat wholly disappeared, and the animal was in a short time as well and hearty as ever. This is a very simple remedy, and we have frequently heard others assert, generally, if not always, an efficient one.—*Maine Farmer*.

Cider.—Here is a recipe worth to farmers the price of our paper for a year: "Take a pint of pulverized charcoal and put it in a small cotton bag, and then put it into a barrel of new cider, and the cider will never ferment, never contain any intoxicating quality, and the longer it is kept the more palatable it becomes."

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

Several communications, and answers to correspondents, intended for this department, are necessarily deferred until next month.

STRAWBERRIES.

The interest felt at the present moment in the cultivation of this fruit is greater than it has ever been before. Evidences of this are to be found in the multitude of inquiries daily made with regard to the merits of particular sorts, as well as in the great demand that exists for plants of such as prove to be *first rate*. Soils, seasons, climates, &c., have great effect upon the quality and productiveness of all sorts of fruit, and the strawberry in particular; hence, we find the most opposite and contradictory statements and opinions, from respectable and reliable sources, respecting the merits of certain varieties. Besides the influences we have already alluded to, individual tastes and partialities, and, we may add, *prejudices*, contribute, in no small degree, to these differences of opinion. On the whole, it appears to us, that cultivators are just about as much united on the question of the individual merit of varieties, as they were, for a long time, on the *sexual* question, which, fortunately, seems now to be pretty well determined. For instance: if a person, whom we will suppose entirely ignorant of the merits of varieties, wishes to make a selection, and will turn to the horticultural journals, and the proceedings of societies, he will find that, at Boston, Mr. Hovey maintains that his seedlings, the "Hovey's Seedling" and the "Boston Pine," are superior to any others. From Cincinnati, the President of the Horticultural Society says:—"*Our old Hudson still stands unrivaled.* Mr. Elliot, of Cleveland, Ohio, says: "I regard the variety known as the 'Willey' superior in all respects for general cultivation." Mr. Downing has expressed his partiality for the *Black Prince*. At Albany, the first premium was awarded, at the late exhibitions, to *Burr's New Pine*, it being pronounced the best exhibited, all its good qualities considered. At Rochester, nearly all the varieties of any note have been tested; and, if we understand correctly the opinion of cultivators, it is that *Burr's New Pine* is the best strawberry,—being hardy, productive, good size, and fine flavored. Hovey's Seedling is a splendid, large fruit; and when a dish of them is presented, picked specimens, they usually carry off the premium; but this is by no means a test of the real value of a variety for general cultivation. In 1848, at the exhibition in Rochester, the premium was awarded to Hovey's Seedling, as being the *best quart*,—but there were other varieties, such as *Burr's New Pine*, *Black Prince*, and *Swainstone Seedling*, higher flavored and finer in quality than Hovey's; but there was not a quart of any of them, and therefore they were excluded. At the late exhibition, the first and second premiums for the best dishes were awarded to *Hovey's Seedling*. Dr. Bayne, of Alexandria, D. C., an extensive cultivator, writes in the last number of Hovey's Magazine, that "Hovey's Seedling stands yet unrivaled."

The cultivators of this place, who are capable of judging, and have tested all the leading sorts, side by side, under the same culture and management and on the same soil, agree in pronouncing the *Large Early Scarlet* as the most profitable under all the circumstances for market purposes. It is very hardy, always bears a large crop, and, though not first rate in quality, finds ready sale. *Burr's New Pine* is as large, nearly as productive, and far superior in flavor. The *Rival Hudson* (Burr's,) is hardy and prolific, firm, and excellent for preserving. Mr. Warner, of this place, pronounces it a most valuable variety. We think it would be of great service to cultivators if horticultural committees would examine strawberries in the beds, and, before awarding premiums, consider all their properties.

For small collections, we cannot err in recommending Burr's New Pine, Boston Pine, Hovey's Seedling, Large Early Scarlet, Rival Hudson, and Bishop's Orange. A few of the Monthly Alpines might be added: for a smaller collection, we would recommend *Burr's New Pine*, *Large Early Scarlet* and *Hovey's Seedling*. The Scarlet should be mixed with the others to impregnate them. It must be remembered, however, that whatever kinds be cultivated, they must have rich, deep and mellow soil. The long continued drouth we have had here has prevented the growth of young plants, and rendered planting up to this time impossible. Recent rains, however, have brought both plants and soil to a proper state, and all through this month beds may be made—later, we would not advise. For directions in detail, we can now only refer to past volumes of the Farmer, or to other works that may be at hand.

LATE CHERRIES.

We are inclined to pronounce the *Belle Magnifique* the best among late Cherries. We had it this year in perfection from the 1st to the 15th of August. Fruit large, almost round, slightly heart-shaped, dark red, tender, juicy, and rich sub-acid. We have had it bear the second year from bud on *Mahaleb* stock. The tree is of slow growth, like the May Duke, or even more so.

Carnation, ripe last of July, and first of August: a beautiful and excellent Cherry; slightly acid, (less so than Belle Magnifique.) It seems to be the connecting link between the sweet and acid varieties. It is well adapted for dwarfing on the Mahaleb stock.

Tradescant's Black, or *Elkhorn*, is a superb fruit, quite as large as the Black Tartarian, but a month later—ripening about the 1st of August.

Gridley is a very valuable cherry, in our opinion, being an immense bearer, and the fruit is very hard and fine for market. It is called the Apple Cherry at the east. The fruit is rich, having just acid enough to give sprightliness. The tree is a rapid, free grower; ripe after *Downer's Late*, latter part of July.

The Fruit and Garden Crops.—In this region the crop of apples, pears and peaches, is smaller, we think, than we have known it in ten years—owing to the long continuance of cold and wet weather after the fruit had set. Plums are unusually plentiful, as far as we have seen, and apricots have been the same. Garden vegetables and flowers have suffered from a drouth which prevailed through much of June, all of July, and part of August. Trees transplanted last spring have suffered severely. Many that had made six inches and upwards of growth, have died off.

HORTICULTURAL MATTERS IN CANADA.

A short time ago we made a journey across Lake Ontario and down the St. Lawrence to Lower Canada, and intended to notice some interesting matters that attracted our attention at the various towns we visited by the way. Indeed, we had notes pretty fully written out for the last number, but they were necessarily set aside: now many of them are out of season, and we can only extract a portion. We cannot omit saying that a more delightful mid-summer trip than this cannot be made. The St. Lawrence presents such an exciting and charming variety. At one place, it is broad and placid, like a calm lake —at another, narrow and fearfully rapid. In one place it seems to be carrying you through an old and populous country — houses, gardens and green fields to the very water's edge. In other places the unbroken forest only is seen, with a rude canoe, perhaps, darting over the water, and you are then reminded of forest life. The "Thousand Isles," of which every body has heard, are alone worth a visit. They are not rocky, forbidding looking islands, but spots of delightful, refreshing verdure, like the outskirts of a well kept park.

At Kingston we noted many interesting things. It is unfavorably situated for gardening purposes; generally speaking, the ground is rocky and ungenial, but on the road leading along the lake shore, where most of the Government offices and institutions are located, there are many gentlemen's residences kept in elegant order. Here we saw some as fine thorn hedges as we have any where seen in America. Three miles out in this direction we visited the residence of the present collector of the port, Jas. Hopkirk, Esq., who is well known as quite an enthusiast in gardening matters. The management of his place might serve well as a model for many. Some five or six years ago he purchased this place—20 acres of land, and an old, dilapidated frame dwelling. The ground about the house, and between the house and street, was a bare rock—not a tree had been planted; the whole affair, judging from a drawing made by Mr. H., presented the most dreary and forbidding aspect. Now, that bare rock is a very pretty plantation of forest trees, and a lawn, through which the carriage road leads to the house. The soil which covers the rock was taken from other places, where excavations were necessary, and was done gradually with the ordinary help of the farm. The trees were mostly taken from the woods, of large size, but so carefully that all have grown well, and look like a plantation of some twelve or fifteen years growth. The dwelling has been remodeled. An old verandah is converted into a green-house, now well stocked with plants; several additions have been made to it, and all around are cheap and simple rustic verandahs, the pillars of which are garnished with climbing plants of various sorts. In addition to the verandahs of the house are several little arbors, erected for comfortable promenades in hot weather, as well as for protection to plants that require it. Mr. H. showed us a drawing made by himself, of the place as it now is, and it really was a pretty picture; and all this has been accomplished by the simplest and cheapest means, and this it was that chiefly struck us. With less taste it would have cost a vast sum of money to have worked such beauty and comfort out of a very desert. There are thousands of persons all over the country, who might, at the cost of a few days or weeks work, effect wonderful change in their residences, and such changes as would give themselves great satisfaction and be the means of inculcating a taste for the beautiful in their families.

Montreal.—The land around this city, unlike that in the neighborhood of Kingston, is very fertile and well adapted to gardening: indeed, the island on which Montreal is situated, formed by the St. Lawrence and Ottawa rivers, has been usually called the "*Garden of Canada.*" There are some fine gardens about the city, those of private gentlemen, as well as those connected with the religious institutions, seminaries, &c.; but gardening has been greatly retarded by the continued agitation of violent opposing political parties. Hundreds of gentlemen have, from year to year, been deterred from carrying out their desired and contemplated improvements. A Horticultural Society was recently organized, and we believe is tolerably well sustained. At the time of our visit, vegetation was suffering from a severe drouth. Behind the city there is a mountain, some 500 feet high or upwards, and a drive around this mountain is really delightful; no stranger can with propriety dispense with it. The view from its summit is extremely grand and picturesque—a charming panorama. There you look down on the whole city and suburbs, with its many glittering roofs and spires; and see the St. Lawrence for miles above and below the city. You see many villages on the other side of the river; and, away, far in the distance, the mountains of Vermont and the northern part of this State. Around the base of this mountain, the chief improvements in the way of gardening seem to be going on. Several gentlemen of taste have erected themselves dwellings here, and many others are now building, so that in a few years the fine situations that are now lying unoccupied will be covered with suburban dwellings and rich gardens. Nature seems to have intended the place for such purposes.

An acquaintance of ours, Robert McKay, Esq., who has just completed an elegant and commodious residence here, and has his grounds already in fine order, informed us that the top of his terrace in front of his house was 30 feet higher than the towers of the Cathedral, which are 220 feet high. Mr. McKay is a sort of pioneer in this mountain settlement. His friends wondered what he meant when he first talked of building here; but now they know what he meant. They have seen how much of beauty and of comfort he has assembled around him — what a charming prospect and what pure air he enjoys — and they are fast following him. The style and finish of Mr. McKay's house, outside and in — his grounds, gardener's cottage and all, are in excellent taste, and if we had space now to spare, we should speak of them in detail, for the benefit of those who may purpose building or improving.

J. E. Guilbault, Esq., who has for many years carried on the Gardening and Nursery business in the city, has removed to his farm at *Cote de Neige*, over the mountain. He has a fine collection of poultry there, and intends to cultivate trees and plants as heretofore.

The principal seed business is carried on by Mr. Geo. Sheppard, who has a fine establishment in Notre Dame street, and enjoys largely, as he deserves, the confidence of the public.

Attend to your strawberry beds, this month.

MANAGEMENT OF FRUIT TREES.

The annexed communication, which we extract from the August number of the Horticulturist, touches upon one or two points on the Management of Fruit Trees, that we conceive to be of great importance to the cultivators of this country generally, but particularly to the South and South-west. It is well known to those who read the horticultural publications of the day, that in all the Western and South-western States, great difficulty is experienced in the cultivation of the *Cherry*, on account of the bursting of the bark on the trunk and large branches of the tree. Prof. Turner, of the Illinois College, has written for the Horticulturist and other papers, some very able and interesting articles on the subject, that we have intended to review if we could find leisure. His theory is, that the corticle of the bark is so strong as to prevent the tree from expanding in the natural way, and the consequence is, that the sap vessels become gorged with the return sap, and finally burst through the corticle, by mere mechanical pressure. He proposes as a remedy for cherry trees thus suffering, to peel off the corticle, or tough outside bark, entirely; and as preventives, "a poor soil, low culture, and above all, to allow *all the limbs* to grow as nature indicates, from the ground up, so as thereby to increase as much as possible the ratio of the surface for the descending sap." This is Prof. Turner's theory. We cannot adopt it without great modification.

The idea of trees being hide-bound is old enough, to be sure, and scoring and skinning them, too, has been practiced time out of mind—but we do not believe in either the cause or the cure. Nor can we advise with Prof. Turner, "poor soil and low culture;" but we unite with him heartily in recommending that form or mode of culture that allows the trees to branch low—and this we recommended long before Prof. Turner's articles appeared. By referring to the volume of this paper for 1847, page 196, in some notes of a tour we were then making in the Western States, it will be seen that we noticed this malady of the cherry tree, and wrote as follows:

> "We suggest as a remedy, *that the trees be not pruned up as they usually are, but be allowed to branch out near the ground.* The trunk will be thus protected, which seems to be all that is wanted. In Cincinnatti, we are informed, they have almost abandoned the culture of the cherry, they are so much discouraged. We think that the trees grown as dwarfs or pyramids will suffer less, if they suffer at all. At any rate, the experiment may be tried. We consider it a great error to expose the trunks of cherry trees to the height of five, six and eight feet, in that climate."

Since we wrote the above we have seen many instances of success in this mode of culture. In our own climate indeed it is quite preferable, where circumstances will admit—and we predict that in less than ten years people will not so generally look for trees with naked trunks as far up as one can see. The same principle holds good in regard to all trees, but particularly the more tender ones. It is not only the heat of summer, but the sun of winter, and the sudden freezing and thawing, that deranges the sap vessels in the trunk and large branches.

We think that the choice of a suitable stock will be of great importance, too, in this matter. Where cherry trees are desired of branchy habit and less vigorous or rank in growth, the *St. Lucie* or *Cerasus Mahaleb* should be used instead of the Mazzard, which is a rank free grower. But we shall say more on this point at another time:

How to Manage Fruit Trees.—I have gained two pieces of information from your journal, which I consider invaluable; and as I fear some of your readers may not have been so much struck with their importance as myself, I shall venture a few words to call attention.

I allude to the absolute necessity, in this climate, of shading the trunks of fruit trees; and the no less important fact, that the mulching the soil greatly promotes the health, vigor, and longevity of a tree.

My eyes were first opened to the great value of *protecting the trunks* of trees, by allowing the trees to form *low heads*, as close to the ground as possible, by reading the masterly article on "Vitality and Longevity of Trees," by Professor Turner, at page 130 of the last volume of your journal. That able correspondent proves, conclusively, to my mind, (and I have by many observations since very fully verified his theory,) that just in proportion to the heat of the climate the trunk of a tree needs shelter; that in a state of nature, all trees which grow alone, and not in woods, where they are sheltered by others, put out branches near the surface, so as to hide and shelter the trunk; and finally, that all fruit trees would do the same if left to themselves, and not continually mutilated and robbed of their fairest proportions by the saw and knife of the "trimmer."

What, indeed, can be more rational? A few days since, we had four successive days when the mercury in Fahrenheit's thermometer stood above 90 degrees all day long in the shade. I took the trouble to hang the glass at midday against the trunk of a peach tree in the full sunshine, when, to my surprise, it rose to 130 degrees. Now, it is next to impossible that the sap-vessels should not become almost baked; and it is not a matter of the slightest surprise to me, that we find the trunk and principal branches oozing out *gum*, and the tree looking feeble and sickly.

Nature has fitted the upper surface of *leaves* to bear the most powerful sunshine; and the constant perspiration through this upper surface of the foliage keeps them comparatively cool. But it is not so with the bark; and if the stem of a delicate tree is exposed to those intense rays of the sun, feebleness or disease must inevitably follow.

I have had a striking proof of this truth before my eyes the past month. Bordering my garden walk are two rows of fruit trees,—each row containing six apricots and twelve peaches. They were both planted five years ago. One of these rows had been headed back, so as to keep the trees quite bushy and low,—the lower branches starting out within a few inches of the ground. (This was done to test more completely the shortening-in pruning, and before I knew the value of shading the roots.)

The other row has been grown in the usual way, as standards; that is, the trees have been trimmed nearly as high as one's head, so as to leave the trunk and lower branches fully exposed to the sun for a good part of the day.

The difference between those two rows of trees is a very remarkable one, even to the general observer. The low headed trees, in the first place, are unusually full of foliage; the leaves themselves are large, and the shoots luxuriant; and the trees have that dark green look, which is the unmistakable sign of good health. The crop of fruit is healthy, hangs on well, and promises to be large and excellent.

The high-headed trees, whose trunks are exposed, are some of them in excellent health; but none of them compare in richness of foliage with the low-headed ones; and about two-thirds of them have a stunted and feeble appearance. Two of the peaches and three of the apricots have died with "gum;" and they all show a meagre growth, when contrasted with those in the other row. Besides, I find, since the two "spells" of very hot weather that have occurred this summer, these bare stemmed trees are gradually shedding a considerable portion of their fruit.

To satisfy myself more completely of the positively injurious effect of the sun on the trunks of trees, and on the roots where the soil is not shaded by the spreading branches, I covered the ground beneath one of these bare stemmed trees with litter four inches thick, and bound a few handfuls of straw around the trunk, to guard it from the sun.

I find this tree more healthy than any other in the row, making luxuriant shoots, and holding its fruit well, and not appearing in the least affected by hot or dry midsummer.

I am, therefore, a warm advocate of the practice of giving all small fruit trees *low heads*, so as completely to shade both the trunks and roots. And I offer you the foregoing facts for the consideration of your readers; [which we are certain they will profit by.—Ed.] A Pennsylvania Subscriber.

CONSTRUCTION OF ICE-HOUSES.

Eds. Gen. Farmer:—Can you publish in your next number, a description of the most approved method of constructing an Ice House? Your subscribers here would be pleased to obtain some information upon that subject. H. H., P. M.—*Town Hill, Luzerne Co., Pa., July,* 1849.

Our correspondent will find the information desired in vol. viii, page 26, of this journal. But as our list of subscribers has more than doubled since the article was published, perhaps we cannot do better than to give the substance of it again.

Ice is a cheap luxury in this country, and the *Ice House* very justly begins to be reckoned one of the necessary buildings on every complete farming establishment. Indeed it is indispensable to the proper preservation of the products of the Dairy and the Garden, as well as of meats, pastry, &c. It would be a gain to many a family, in one year, of what one that would answer every purpose would cost. We recommend the matter, at once, to the attention of our readers.

The following excellent suggestions on Ice Houses are extracted from the Horticulturist:—

To build an ice house in *sandy or gravelly* soils, is one of the easiest things in the world. The drainage there is perfect, the dry porous soil is of itself a sufficiently good non-conductor. All that it is necessary to do, is to dig a pit, twelve feet square, and as many deep, line it with logs or joists faced with boards, cover it with a simple roof on a level with the ground, and fill it with ice. Such ice houses built with a trifling cost, and entirely answering the purpose of affording ample supply for a large family, are common in various parts of the country.

But it often happens that one's residence is upon a strong loamy or clayey soil, based upon clay or slate, or, at least, rocky in its substratum. Such a soil is retentive of moisture, and even though it be well drained, the common ice house just described will not preserve ice half through the summer in a locality of that kind. The clayey or rocky soil is always damp—it is always an excellent conductor, and the ice melts in it in spite of the usual precautions.

Something more than the common ice house is therefore needed in all such soils. "How shall it be built?" is the question which has frequently been put to us lately.

To enable us to answer this question in the most satisfactory manner, we addressed ourself to Mr. N. J. Wyeth, of Cambridge, Mass., whose practical information on this subject is probably fuller and more complete than that of any other person in the country, he for many years, having had the construction and management of the enormous commercial ice houses near Boston—the largest and most perfect known.

THE COMMON ICE HOUSE BELOW GROUND.

We desired Mr. Wyeth's hints for building an ice house for family use, both above ground and below ground.

In the beginning, we should remark that the great ice houses of our ice companies are usually built above ground; and Mr. Wyeth in his letter to us remarks, "*we now never build or use an ice house under ground;* it never preserves ice as well as those built above ground, and costs much more. I, however, send you directions for the construction of both kinds, with slight sketches in explanation." The following are Mr. Wyeth's directions for building:

"1st. An Ice House *above ground.* An ice house above ground should be built upon the plan of having a double partition, with the hollow space between filled with some non-conducting substance.

"In the first place, the frame of the sides should be formed of two ranges of upright joists, 6 by 4 inches; the lower ends of the joists should be put into the ground without any sill, which is apt to let air pass through. These two ranges of joists should be about two feet and one-half apart at the bottom, and two feet at the top. At the top these joists should be morticed into the cross-beams, which are to support the upper floor. The joists in the two ranges should be placed each opposite another. They should then be lined or faced on one side with rough boarding, which need not be very tight. This boarding should be nailed to those edges of the joists nearest each other, so that one range of joists shall be outside the building, and the other inside the ice room or vault.

"The space between these boardings or partitions should be filled with wet tan, or sawdust, whichever is cheapest or most easily obtained. The reason for using *wet* material for filling this space is, that during winter it freezes, and until it is again thawed, little or no ice will melt at the sides of the vault.

"The bottom of the ice-vault should be filled about a foot deep with small blocks of wood; these are levelled and covered with wood shavings, over which a strong plank floor should be laid to receive the ice.

"Upon the beams above the vault, a pretty tight floor should also be laid, and this floor should be covered several inches deep with dry tan or sawdust. The roof of the ice house should have considerable pitch, and the space between the upper floor and the roof should be ventilated by a lattice window at each gable end; or something equivalent, to pass out the warm air which will accumulate beneath the roof. A door must be provided in the side of the vault to fill and discharge it; but it should always be closed up higher than the ice, and when not in use should be kept closed altogether.

"2d. An Ice House *below ground.* This is only thoroughly made by building up the sides of the pit with a good brick or stone wall, laid in mortar. Inside of this wall set joists, and build a light wooden partition against which to place the ice. A good floor should be laid over the vault as just described, and this should also be covered with dry tan or sawdust. In this floor the door must be cut to give access to the ice.

"As regards the bottom of the vault, the floor, the lattice windows in the gables for ventilation, etc., the same remarks will apply that have just been given for the ice house above ground, with the addition that in one of the gables, in this case, must be the door for filling the house with ice.

"If the ground where ice houses of either kind are built, is not porous enough to let the melted ice drain away, then there should be a waste pipe to carry it off, which should be slightly bent, so as always to retain enough water in it to prevent the passage of air upwards into the ice house."

HORTICULTURAL EXHIBITIONS.

We had prepared short notices of the Exhibitions of several Societies for last month's paper, but it was found necessary to leave them over to give place to other items, supposed to be of more general interest.

The June Exhibition of the Genesee Valley Society was in a great measure satisfactory to those present. The collections of Strawberries were fine. M. G. Warner had 13 varieties; Charles Paulk, of Honeoye Falls, 7 varieties; Bissell, Hooker & Sloane, 10 varieties; besides many other contributors. *Hovey's Seedling* took the prize for the *best quart*—this, however, is no test of the value of a variety for general cultivation. Fine specimens of Northern Spy Apple were shown by J. H. Watts.

In the Flower Department there was a fine show of Roses, Verbenas, &c. Those that struck us as most worthy of mention was a collection of 30 varieties of Verbenas, and 30 of Roses, arranged in 7 baskets and 3 vases by Miss Whitney. A fine collection of Roses, Phloxes, &c., by Samuel Shadbolt, Esq., of Scottsville. A superb new Herbaceous Pæony, pure white and fragrant, said to surpass Whittlejii, named *Major Williams*, raised and shown by John Donnelan, of Greece. Mr. D. has raised several other fine seedling Pæonies, but the Major is the best. Very fine collections of Herbaceous Plants and Roses were shown by J. J. Thomas, of Macedon, Ellwanger & Barry, and J. W. Bissell, of Rochester. The next exhibition will be held in September.

ALBANY AND RENSSELAER SOCIETY.

The June Exhibition of this Society, judging from reports of the committees, was very fine. *Strawberries* and *Roses* were the prominent articles, though there were a great many other interesting productions.

Some 18 or 20 varieties of Strawberries were shown by the various contributors, including Boston Pine, Hovey's Seedling, Ross' Phœnix, 4 or 5 of Burr's varieties, and many others; and the premiums were awarded as follows:

For the best and finest flavored variety, to B. B. Kirtland, for Burr's New Pine—a delicious, hardy and productive variety, but comparative moderate size,	$2 00
For the second best, with same requirements, to Luther Tucker, for Royal Scarlet—a large and delicious as well as beautiful variety, and but little inferior to the above, - - - - - - - - - - - -	1 00

The following are the premium Roses. Our friend Wilson maintains his pre-eminence in this department:

For the best 12 varieties, viz.: Princess Lamballe, Beauty Etheriel, Violateum, Madam Audot, Kean, Lady Stuart, Bourbon Moss, D'Agesson, Schon Brun, Blanche Superb, London Pride and Violateum, to James Wilson, - - - - - - - - - -	$2 00
For the best 6 varieties, viz.: Persian Yellow, Lanseur, Leda, George the 4th, Tri-Color, D'Orleans, and Princess Clementine, to Jas. Wilson, - - -	1 00

Dr. Wendell exhibited Hoo-Sung, a newly imported Chinese vegetable, and some fine specimens of large Early Asiatic Cauliflowers, the seed of which was forwarded to Dr. Wendell from the London Horticultural Society. It was sown 15th of March, and the plants set out in May.

The same Society, (Albany and Rensselaer,) held an exhibition on the 25th of July. The collections of Cherries, Gooseberries, Currants and Raspberries appear to be unusually fine.

The following are the varieties to which the premiums were awarded:

Cherries.—For the best three varieties to Dr. Herman Wendell, for Elkhorn, Yellow Spanish or Graffion and Wendell's Mottled Bigarreau, - - - - -	$2 00
For the best variety to Dr. Herman Wendell, for Wendell's Mottled Bigarreau, - - - - - - - - - -	1 00
Gooseberries.—For the best and finest flavored variety, to Henry Vail, for Compton's Sheba Queen.	2 00
For the second best variety to Henry Vail, for Lady of the Manor, - - - - - - - - - - - - - -	1 00
Currants.—For the best and finest flavored variety to James Wilson, for Knight's Sweet Red, - - -	2 00
For the second best variety to Henry Vail, for White Dutch, - - - - - - - - - - - - - - - -	1 00
Raspberries.—For the best and finest flavored variety to Henry Vail, for Fastolff, - - - - - - -	2 00
For the second best variety to Henry Vail, for Franconia, - - - - - - - - - - - - - - - - -	1 00

And special premiums of one dollar each, to Ely Young, for Peach Apricots, to B. B. Kirtland, for Citron des Carmes Pears, and to Ezra P. Prentice, for Yellow Harvest Apples.

There were also very good collections of Verbenas, Perpetual Roses, Carnations, Dahlias, &c.

The Fruit Committee remark that "Henry Vail, Esq., of Ida Farm, Troy, exhibited 17 varieties of Gooseberries, of very large size and entirely free from mildew. This is attributable to thick layers of salt meadow hay under the bushes."

Fruits Recommended by Com. of N. Y. State Ag. Society.—We are indebted to B. P. Johnson, Esq., Secretary of the N. Y. State Ag. Society, for a copy of the Transactions for 1848—a splendid, large volume, of nearly 1,000 pages. We have had time to examine only the part relating to fruits.

"Dr. Wendell, from the committee on fruits, reported that the committee beg leave to suggest to the Society, to be added to the lists of varieties heretofore recommended by them for general cultivation, and which were described in the Transactions of the Society for 1845 and 1847, the following, viz:

Apples—American Summer Permain, Eary Rose, Pomme Royale, Norton's Melon, Mother, Autumn Strawberry, and Wagener.

Pears—Tyson, Rostiezer, and Golden Beurre of Bilboa.

Plums—Red Gage and Purple Favorite.

Peaches—White Imperial and Cooledge's Favorites.

Apricots—Moorpark and Breda.

Nectarines—Downton and Boston."

Outlines and minute descriptions of the apples, pears and plums are given, and descriptions of the others:

"The Wagener Apple. from Caharlys Lee, of Yates county, to which the second premium of the Society, for seedlings, was awarded at the annual meeting in 1348, was again presented for competition, in accordance with a suggestion of the committee for that year, they being then unable to decide on its merits as a long keeper, owing to the fact of its having been bruised on the passage to this city. in consequence of being badly packed; and therefore, not wishing to award it at that time more than the second premium. The fruit is this year presented under more favorable circumstances, and from its beautiful appearance, good size, tenderness of flesh, and delicacy of flavor, as well as from information before the committee, which fully establishes its character as a long keeper, they have concluded to recommend that it be placed in the *first class* of apples. and that an additional sum of $5, and also a diploma, be awarded Mr. Lee for it."

Several other seedling apples were presented, but all ranked below the Society's standard. A seedling winter pear was offered for examination by Chas. Paulk, of Mendon, but was pronounced *far* below the standard rule.

Editor's Table.

Correspondents and others interested are reminded that articles, notices and advertisements, should be mailed on or before the 15th of the preceding month, in order to secure insertion in any specified number of the Farmer. A number of valuable communications, &c., were received too late for publication this month.

In consequence of unavoidable delays, caused by sickness and breaking of the steam press upon which the Farmer is printed, the August number was not mailed to a portion of our subscribers until after the tenth, though we *commenced* printing and mailing before the first of the month. Our present number is issued earlier than usual, however, and we shall endeavor to be equally prompt in future.

Transactions.—We are indebted to the Secretary, Col. B. P. Johnson, for a copy of the Transactions of the N. Y. State Ag. Society for 1848. The volume is larger than any preceding one, numbering nearly one thousand octavo pages. In addition to the doings of the Society, and reports of county societies, it contains valuable essays from several practical and scientific gentlemen who have devoted much attention to improvements in Agriculture and Horticulture. It is also embellished with numerous engravings, illustrative of practical subjects—not mere fancy sketches. The work is worthy of the institution from which it emanates, and highly creditable to Col. Johnson, under whose supervision it has been published—for we rarely find so large a volume equally unexceptionable in matter and arrangement. We shall extract liberally from the work, for publication in this and future numbers of the Farmer.

— Our thanks are due to J. W. Proctor, Esq., for a copy of the Transactions of the Essex Co. (Mass.) Ag. Society for 1848—a handsome octavo volume of 130 pages.

State Fair.—President Taylor has left Washington on his tour through Pennsylvania and the New England States, and will arrive at Syracuse on *Monday, the 10th of September*, and attend the Fair. The Hon. Henry Clay is also expected. Gov. Fish, and the Governors of several of the other States, will be present. Every thing indicates that this will be the largest exhibition ever held by the State Society—and no doubt thousands of our citizens will avail themselves of the occasion to pay their respects to the President of the United States.

The Canada Provincial Ag. Fair is to be held in Kingston on the 18th, 19th, 20th and 21st days of September. Great preparations are being made for the exhibition. Over $6,000 are to be distributed in premiums. Articles from the United States intended for competition, will be admitted *duty free*. We hope to see a good attendance of American farmers and manufacturers, with their products, implements, &c.—particularly from the more northern counties of New York, bordering on the Lake and the St. Lawrence.

Samples of Merino Wool.—We have received from Mr. John D. Patterson, of Westfield, Chautauque Co., N. Y., fine samples of wool from fleeces of a yearling buck and ewe of Mr. Taintor's importation. The fleece of the buck weighed 14 lbs. 8 oz.—that of the ewe, who bred a lamb, 10 lbs. 10 oz. "Their wool was well rubbed with soap, then thoroughly washed in a clear stream of water, and sheared as soon as they were dry." These lambs were noticed in our volume for 1848, page 228—and we are glad to record the above facts. Mr. P. has one of the best flocks in the State.

— We have also received handsome samples of Merino wool from Mr. Reed Burritt, of Burdett, Tompkins county—referred to in an article by Mr. B., on page 210, of this number.

Mr. H. E. Hooker, of the firm of Bissell & Hooker, of the Bochester Commercial Nursery, sails on the 1st of September for Europe. He intends visiting some of the principal establishments in France and England, during the months of October and November, and will probably return in December. He has our best wishes for a safe and pleasant journey.

Portrait of Buena Vista.—We have received a line from Mr. S. P. Chapman, stating that the portrait of his Short-horn bull "Buena Vista," given in our August number, does not do the animal justice. "Buena Vista" will be exhibited at the State Fair in Syracuse, and (we infer from Mr. C.'s letter,) offered for sale.

Agricultural Shows for 1849.—Annual Fairs of State and County Agricultural Societies are to be held this fall as follows. The list includes all the Societies, in this and other States, from which we have yet received definite information:—

New York State,	at Syracuso,	Sept. 11, 12 and 13.
Cortland County,	Homer,	Sept. 26 and 27.
Chemung "	Horse Hends,	Oct. 17 and 18.
Delaware "	Delhi,	Oct. 3.
Essex "	Keeseville,	Sept. 18 and 19.
Genesee "	Batavia,	Oct. 4 and 5.
Herkimer "	Herkimer,	Sept. 6 and 7.
Jefferson "	Watertown,	Sept. 26 and 27.
Livingston "	Geneseo,	Sept. 4 and 5.
Monroe "	Rochester,	Sept 26 and 27.
Orleans "	Albion,	Sept. 27 and 28.
Onondaga "	Syracuse,	Oct. 3, 4 and 5.
Oneida "	Hampton,	Sept. 26 and 27.
Renseelaer "	Troy,	Sept. 25, 26 and 27.
Saratoga "	Mechanicsville	Sept. 11 and 12.
Seneca "	Ovid,	Oct. 4 and 5.
Suffolk "	Greenport,	Oct. 2.
Wayne "	Palmyra,	Sept. 26 and 27.
Wyoming "	Warsaw,	Sept. 26 and 27.
Washington "	Whitehall,	Sept. 19 and 20.
Yates "	Penn Yan,	Oct. 5 and 6.
Michigan State,	Detroit,	Sept. 26 and 27.
Maryland State,	Baltimore,	Oct. 10, 11 and 12.
Provincial, (Canada,)	Kingston,	Sept. 18, 19, 20, 21.
Worcester Co. (Mass.)	Worcester,	Sept. 20.
Essex County "	Salem,	Sept. 27.
Middlesex "	Concord,	Oct. 3.
New Haven, (Conn.)	New Haven,	Sept. 25, 26 and 27.
Medida county, (Ohio,)	Medina,	Sept. 26 and 27.
Ashtabula " "	Jefferson,	Sept. 13.
Geauga " "	Burton,	Sept. 19 and 20.
Portage " "	Ravenna,	Sept. 26 and 27.
Mahoning " "	Canfield,	Oct. 2 and 3.
Clinton " "	Wilmington,	Oct. 17, 18 and 19.
Trumbull " "	Warren,	Sept. 25, 26 and 27.
Ross " "	Chillicothe,	Oct. 5 and 6.
Licking " "	Newark,	Oct. 3 and 4.
Delaware " "	Delaware,	Oct. 2 and 3.
Clermont " "	Batavia,	Sept. 25.

Alexander Walsh.—We regret to announce the decease of this distinguished and ardent friend of improvement.—He died at his residence in Lansingburgh, N. Y., on the 3d of August. Mr. Walsh was one of the earliest and most active friends of Agriculture and Horticulture in this State. He will be remembered by many of our readers as a valuable contributor, some years ago, to the agricultural journals, and as one of the first members and promoters of the N. Y. State Ag. Society.

National Economy.—An eminent member of Congress from the West, writing to a friend in Massachusetts, says: "A vigorous effort will be made at the next session of Congress to disband our army, and to lay up most of our ships, and discharge most of our seamen. I am advising our people to petition for those objects. If it should meet the views of our New England friends, would it not be well to send on petitions to Congress?"

Yes, disband or at least diminish the army and navy, that the millions annually squandered to sustain them may be saved or appropriated to more useful objects. Let the Farmers of America petition for retrenchment in the above named departments, and demand, as a right, appropriations for the promotion of Agriculture and its kindred arts and sciences.

Crops, &c., in Alabama.—A friend writes us from Talladega county, Ala., under date of Aug. 7, as follows:—"We have had rain almost daily for the last two months. Should it continue so much longer, there will not be over half a crop of cotton made; as it is now, it must fall short one-third. All the low lands have been inundated. The corn crop will fall short one-third, owing to the the great loss on the low lands."

Correction.—In my communication on the subject of Wool and Wool Growing, I stated, or should have done so, that my 54 old sheep clipped 4 lbs. 9 oz. of wool each—instead of 4 lbs. 3 oz., as printed in the July number of Gen. Farmer, page 187. Either the printer or myself has made a mistake. Please correct in your next number, and much oblige one of your readers. Samuel Embree.—*Yates County, N. Y.*

Ladies' Department.

Domestic Accomplishments.—In the domestic relationship there ought to be no selfishness. Whatever elegant acquirements we may chance to have made, instead of being reserved for rare occasions, should be suffered to shed their softening influence on every-day experience. The prints should not be carefully kept out of sight of the children of the family, and turned over only for the benefit of the stranger; the picture should not be curtained except when there is company; or the piano be dumb because there is "no one but ourselves" to listen. There may be less triumph, but there is surely equal if not greater happiness in singing by the fireside than in warbling in the saloon; and though the thanks of the father or brother be homely in expression, there is more sweetness in them than in all the studied common place of society. A sadder sight can scarcely be conceived than that of the spirit of dulness taking possession of the family circle. We see it in the husband, who, hour by hour, gazes moodily by the fire; in the wife, who occupies herself with her mechanical employment, without seeking to break the enchanted silence. Neither entertains the intention of injuring the other, and yet they are mutually defrauded of the happiness they ought to enjoy.

* * *

How to make Imitation Wax Candles.—Throw a quantity of quicklime into melted mutton suet; and when the lime has settled in the bottom, so as to leave the suet pure and clear, dip off the suet very carefully. To every pint of this suet add the same quantity of real wax, and you will have a pretty white and firm candle. The candle may be improved by adding a double quantity of wax. The wick of these candles should be harder twist and not so large as those used for common beef tallow candles.

* * *

Tomato Catsup.—First bake your tomatoes, then squeeze them through a sieve. Add to six quarts of juice an equal quantity of wine vinegar; boil slow until it begins to thicken; then add cloves, allspice and pepper, half an ounce each, cinnamon, one-fourth of an ounce, and two nutmegs, all finely powdered. As it thickens, add four spoonfuls of salt, and when done, pour out in an earthern dish to cool. Bottle, cork, and seal, and it will keep years in a warm climate.

* * *

Boiling.—Dr. Webster, in his Encyclopedia of Domestic Economy, directs that meats for boiling should be put into cold water, and heated together with the water. Liebig gives a different mode, viz: that they should be put into boiling water, in the manner as directed for vegetables. The reason given is, that if put into cold water, the juices of the meat, on which the flavor depends, will be gradually solved, and go to enrich the soup instead of being retained in the meat. All authorities recommend the use of hard instead of soft water for meat, unless soup is to be made.

* * *

The neatest way to separate beeswax from a comb is to tie it up in a linen or woolon cloth or bag with a pebble or two to keep it from floating; place it in a kettle of cold water, which hang over the fire; as the water heats, the wax melts and rises to the surface, while the impurities remain in the bag.

Boys' Department.

A Text for Young Men.—A better subject for young men to discourse about, and to medidate upon, was never written than the following by Swift: "No man ever made an ill figure who understood his own talents, nor a good one who mistook them."

Young men do not fail in the pursuits of life because they lack ability to succeed, half as often as from a misdirection of talents. A right use of a moderate capacity will accomplish much more than a wrong application of the most brilliant qualifications. Study therefore yourselves. Aim to find out the actual talents you possess, and then endeavor to make the best possible use of them, and you can hardly come short of making a good figure in the world, and what is more, being one among those who lived not in vain.

* * *

Importance of Study in Youth.—If it should ever fall to the lot of youth to peruse these pages, let such a reader remember, that it is with the deepest regret that I recollect in my manhood the opportunities of learning which I neglected in my youth; that through every part of my literary career, I have felt pinched and hemmed in by my own ignorance; and I would this moment give half the reputation I have had the good fortune to acquire, if by so doing I could rest the remaining part upon a sound foundation of learning and science.—*Sir Walter Scott.*

* * *

Aiming at Perfection.—There is no manner of inconvenience in having a pattern propounded to us of so great perfection as to be above our reach to attain to; and there may be great advantages in it. The way to excel in any kind is to propose the brightest and most perfect examples to our imitation. No man can write after too good and perfect a copy; and though he can never reach the perfection of it, yet he is likely to learn more than by one less perfect. He that aims at the heavens, which yet he is sure to come short of, is like to shoot higher than he that aims at a mark within his reach.

* * *

Order is the sanity of the mind, the health of the body, the peace of the city, the security of the state. As the beams to the house, as the bones to the microcosm of man, so is order to all things.—*Southey.*

Rochester Commercial Nursery,
No. 3 EAST AVENUE, ROCHESTER, N. YORK.

THE Subscribers respectfully inform the public that their stock of FRUIT TREES for sale this Autumn is very large. and comprises all the varieties that are really desirable. They leave to others the task of cultivating and selling worthless varieties, vnd intend to propagate none but such as have been well tested and approved.

To those who wish to buy to sell again, we can offer great inducements.

☞Priced Catalogues furnished to post-paid applicants.
Sept. 1, 1849. [9-4m] BISSELL & HOOKER.

ORDERS FOR EUROPE.

Mr. H. E. Hooker, of the firm of Bissell & Hooker, sailed for Europe Sept. 1, and will spend the winter in France and England selecting trees and stocks. Orders forwarded to B. & H.. at Rochester, before Oct. 1, will be sent to Mr. H. Sept. 1 [9-1t]

Cherry and Pear Stocks for Sale.

THE Subscriber offers for sale at his Nursery at Big Stream Point, Yates county, N. Y., **100,000** CHERRY SEEDLINGS of good growth ahd assorted. at $5,00 per M. Also 10,000 *Pear Stocks*, from 8 to 17 inches in height; they are in perfect health, free from leaf blight, and will be sold at $10 00 per M. All orders directed to the subscriber will be promptly attended to.
[1t*] ISAAC HILDRETH.

Albany Agricultural Warehouse,

No. 369 & 371 South Broadway.

THE Subscriber having during the past season suffered in common with many of his fellow citizens—his warehouse being consumed, &c.—has procured the spacious new store erected for his business, No. 369 and 371 South Broadway, where he has an extensive assortment of all the best and leading AGRICULTURAL IMPLEMENTS and MACHINES in use. From his long and successful experience in the manufacture and sale of articles in his line, he flatters himself that he can suit the wants of the farming public to the best of its kind, and on as favorable terms as any other manufacturer in the States.

Among his assortment are his celebrated Horse Powers, Threshing Machines and Separarors.

Smith's Patent Cornshellers for horse power.

Clinton Hand Shellers, single and double hopper; Grant's Patent Premium Fanning Mills, for power and hand, &c, &c.

Also, a complete assortment of Garden, Field and Grass Seeds.

[9-tf] H. L. EMERY.

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD, GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1, 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years, and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple, substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention J. A. HOLMES & CO.

Brockport, March 15, 1849

An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock, crops in ground, and farming utensils, &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him, Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester

[5tf] JOHN OGDEN DAY.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office.

Back numbers (and volumes) of the Farmer promptly supplied to all new subscribers.

Choice Strawberry Plants for Sale at the Mt. Hope Garden and Nurseries.

AUGUST and September being the best time for forming Strawberry Plantations, we offer for sale on reasonable terms, the finest varieties now cultivated. At the head of the list we place BURR NEW PINE, which, (size, flavor and productiveness being taken into consideration,) is perhaps the best Strawberry yet produced. Also,

Myatts' British Queen,
Bishop's Orange,
Boston Pine,
Burr's Rival Hudson.
Burr's Columbus,
Black Prince,
Hovey's Seedling,
Large Early Scarlet,
Princess Alice Maud.
Swainstone's Seedling,
Deptford Pine,
Ross's Phœnix,

And a variety of others, such as Alpine Red Bush, Alpine White Bush, Alpine Red Monthly, White do., Wood Red and White, and a variety of others, to which we invite the attention of all who intend to plant the Strawberry. A good article costs but little more in the first place than a poor one, and re-pays tenfold.

Rochester, July 1, 1849. ELLWANGER & BARRY.

Strawberry Plants for Sale.

Pistilate—	*Staminate*—
Burr's New Pine,	Boston Pine.
Rival Hudson,	Ross' Phœnix,
Columbus,	Burr's Old pine,
Black Prince,	Swainstone Seedling,
Crimson Cone,	Large Early Scarlet.
Hovey's Seedling,	
Bishop's Orange.	

Having grown the above varieties of Strawberries for two or three seasons past, and used much care, to keep them pure and unmixed, all orders will be attended to, and genuine plants forwarded—

Burr's New Pine, is *the best Strawberry ever grown*, and the earliest of all large berries.—The Rival Hudson, for its prolificness, hardness of berry, and rich subacid flavor, is the best market berry I have grown.

Pistilate plants are the best bearers; but they all require Staminate plants near them for fertilizers

Prices of Plants.—Burr's New Pine, 50 cts. per dozen, or $3 per hundred. Hovey's Seedling, Burr's Old Pine, and Large Early Scarlet, each 25 cts. per doxen, or $1 per hundred. All the other varieties, 50 cts. per dozen, or $2 per hundred.

Rochester, August 1, 1849. [8-2t.] M. G. WARNER.

Sale of Hereford Cattle.

THE MESSRS. BINGHAM, Brothers, of Vermont, will offer for sale from ten to twenty head of HEREFORDS, 3 years old and under—bulls and heifers. We purchased our herds of Corning & Sothom—have given them a fair trial—have made up our minds that, all things taken into consideration, they are the best race of improved cattle extant, and are determined to push ahead in the improvement of them. We shall sell at Public Auction, at the State Fair at Syracuse, and shall offer some noble samples of the race.

Pure Merino Sheep.

Also, at private sale, same time and place, a large lot of pure bred MERINO SHEEP, from imported sires. Breeders of sheep will do well to look over our flocks before purchasing elsewhere. We shall offer no mongrels or grades, but our best blooded sheep, at fair prices. [8—2t.

Peruvian Guano.

JUST arrived, fresh from the Chinche islands, 730 tons first quality Peruvian Guano. Six years' experience in the use of Guano,, by our farmers and gardeners in the states bordering on the Atlantic coast, has proved it far superior to any other, and the cheapest manure they can purchase. It is particularly valuable for wheat, grass, and all field crops; also fruits and garden vegetables. Inquire at the Agricultural Warehouse and Seed Store, of

A. B. ALLEN & CO.,
[8—2t.] 189 & 191, Water St., New York.

A Small Farm Wanted.

A Letter addressed to C. S., Newport, N. Y., describing the premises, and mentioning the terms, will receive attention.

August, 1849. [8—3t.

Improved Well and Cistern Pumps.

DOWNS, MYNDHERSE & CO., of Seneca Falls, N. Y., would call the attention of Hardware Merchants and all others who have occasion to deal in or use suction pumps, to their *CAST IRON, REVOLVING SPOUT AND CISTERN PUMPS*, for which they have obtained Letters Patent of the United States. For particular description and figures of our Pump, see August number of the Genesee Farmer, page 181. [9-tf]

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Market Prices of Agricultural Products.

New York, August 21:

Ashes—The market is dull for both sorts at $6 06½.

Flour—There is but little doing in State flour. Demand has fallen off for the East, and the market for the low grades favors the buyer. Sales 2000 bbls at $5 37½a5 44 for common State—$5 50a5 56 for straight State—$5 62½a5 75 for favorite Indiana and pure Genesee. and $5 75a5 81 for good Ohio. Rye flour is scarce at $3 31a3 37. Jersey corn meal is wanted at $3 44. Generally held at $3 50.

Grain.—The market is without change for wheat. There is considerable new Southern on the market and the tendency is downward. Rye is scarce and nominal. 63a64c Oats are plenty and steady at 38a40c. Extra lots held higher. Corn is rather easier to purchase. Demand for the East moderate, with sales 15.000 bu. at 62a63c for western—63a63½ for round Southern and flat yellow.

Provisions.—Holders of pork are rather firmer. Demand steady for the home trade $10 81a10 87 for mess and prime at $9. Beef is steady and saleable at $13 50a$14 for mess. Cut meats are inactive at 7c for hams—shoulders 5. Lard is firm at 6½a7c for good to prime. and dull. Butter is dull and more plenty at 7a11 cents for Ohio, and 10a14c for western and state. Cheese is very plenty and is steady at 2a7c.

BAGS!—at 12 Buffalo-Street.

I WOULD respecfully call the attention of farmers, millers, forwarders, &c., to my assortment of BAGS and BAGGING. I have every variety of Bags, from 18c. upwards. Call and see, and be satisfied. Also, a good assortment of Halter Rope, Cordage and Twine, of every description. E. C. WILLIAMS,
[9-tf] Ship Chandler and Sail Maker, No. 12 Buffalo-st.

Woodbury's Horse Power and Separator.

THE Subscribers, having erected extensive works, for manufacturing Woodbury's Patent Improved Horse Power and Separator, are prepared to furnish a machine to order, combining greater simplicity, durability, and operating much easier than any other in use. The Horse-Powers are mounted, and operated on wheels, thereby saving three-fourths the usual time in getting up—and we will warrant it, together with the Separator, superior to any in use.

Communications for further particulars, (post-paid.) cheerfully responded to. J. & D. WOODBURY.
Rochester, N. Y., June 1, 1849. (5-3t*)

MOUNT HOPE GARDEN AND NURSERIE
ROCHESTER, N. Y.

THE proprietors invite the attention of Fruit Grow
serymen, and dealers in trees to their present stock
fered for sale. By recent large importations from
an extensive scale of propagation at home, we have
stock of nursery articles as complete as any in the
we offer them to purchasers on the most liberal cond

The well known health, vigor and hardiness of the
here, and the undivided and scrupulous attention
department by the propietors in person, offer great
to purchasers

STANDARD FRUIT TREES,

Consisting of all the best varieties of the *Apple, Pe*
Cherry, Peach, &c., of suitable age and size for orchard
The principal stock is made up of the well known
but all the new American and foreign kinds are in our
and can be furnished.

PYRIMIDAL AND DWARF TREES,

Consisting of select varieties of Pears on Quince, Apples on
dise, and Cherries on St. Lucie, or Mahaleb stocks, for
and limited grounds; and for nurserymen and others
obtain fruit from their trees at an early day. We have
years given special attention to this department, and
believe we have probably the largest and best stock in

GOOSEBERRIES, RASPBERRIES, CURRANTS, ETC.

Of these we have a large and complete assortment, and
ply them by the 100 or 1000. The best English Gooseberries
imported every year. All the new Currants can be supp

ORNAMENTAL TREES, SHRUB ROSES, ETC.

All the leading sorts, such as Horse Chesnut, Mountain
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low ordinary rates—besides a large collection of new and
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Buckthorn 2 and 3 years from seed; Osage Orange, 1 and 2
Privet; besides Evergreens, such as Red Cedar, Hemlock
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STOCKS AND YOUNG WORKED TREES FOR NURSERI

Pear Seedlings, 1 and 2 years transplanted; Plum do. 2 years
seed bed; Paradise Stocks, for Dwarf Apples; Mazzard
Seedlings 1 year; St. Lucie, or Mahaleb Stocks, for dwarf
ries; Quince Stocks, of sorts commonly used.

Young worked tres for distant transportation.

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grower. We have now obtained a pretty large stock
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all post-paid applications.
Sep 1, 1849. ELLWANGER & BARR

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A Bright Bay Horse Colt, foaled Aug 26 1848
promise, sired by Gen. Gifford, from a mare of
passed travelling qualities. Inquire at this office
J. DORR, Scottsville.

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Published on the first of each month, at Rochester, N. Y.
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Edit
P. BARRY, Conductor of Horticultural Departme

Fifty Cents a Year, in Advance.

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☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication— in advance. The circulation of the Farmer is from eight thousand larger than that of any other agricultural journal published in the United States.

☞ Advertisements, notices, &c. should be forwarded on or before the 15th of the preceding month, to secure insertion in any specified number.

☞ The Farmer is subject to newspaper postage only.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—OCTOBER, 1849. NO. 10.

Rural Science and Economy.

ANALYSIS OF MAIZE, OR INDIAN CORN.

PRIZE ESSAY. History and Chemical Investigation of Maize, or Indian Corn. By J. H. SALISBURY.

Mr. S. deserves the gratitude of his country for increasing its knowledge of an indiginous plant, which is extensively cultivated and more valuable than any other grown in the United States. Thanks are also due the New York State Agricultural Society for its liberal premium of $300, which has elicited so important a contribution to Rural Science from an indefatigible American chemist. It is the privilege of practical farmers to avail themselves of the material facts disclosed by these researches; and it is to aid them in that regard that the present review of the labors of the author is written.

The Essay forms over 200 pages in the volume of Transactions of the State Society for 1848: and is equally large when published separately, in which form the author has very properly secured a copy right. The work deserves and will command an extensive sale.

In the first twenty pages, we find an exceedingly interesting history compiled from authentic sources, of *Maize*, or *Indian Corn*, showing it to be a native of American soil, and unknown in Europe, Asia or Africa before Columbus discovered the New World. Maize was extensively cultivated by the Indians alike in North and South America and the West Indies, at the time Europeans first visited and planted colonies in this hemisphere. The vast and peculiar capacity of this plant, which belongs to the cereals and family of grasses, to sustain a dense population, is hardly begun to be appreciated. As the human race increase on the earth and acquire a higher standard of comfort, calling for more breadstuffs, meat, butter and cheese, the superiority of Maize over all other plants, whether for its forage or its seeds, will be seen and acknowledged by all. So long as our soil and climate shall produce cheap corn, and cheap cotton, human food and raiment must greatly abound in the land. These will command beyond all contingency, a population more numerous than any thing which Egypt, Asia or Europe has ever witnessed. Providence has given to the New World agricultural capabilities, peculiar and superior in many respects, for the economical production of bread, meat, milk, wool and cotton. As a people, a peculiar destiny awaits us; and that destiny has for its broad, enduring and honorable basis, *the science and the art of agriculture*, wisely adapted to American sunshine, seasons, plants, and the wants of civilized man. But we wander from our text. Let us return to the Chemical Investigation of Indian Corn.

Till it approaches maturity this plant contains a large per centage of water in its stems and leaves. When ten days above ground, young plants yield over 89½ per cent of pure water, if cut off even with the earth and perfectly dried. 100 parts of dry plants give over 13 of ashes. At 25 days from planting, the proportion of water was less than 87 per cent; and the ash 10.7 per cent. Young corn stalks gave 94 parts of water in 100. The more rapidly any plant grows, the larger the proportion of water which it contains and also of alkaline and earthy salts. The crop planted on the 3d June gained most in the week preceding the 16th of August, when the ears were forming. The gain in weight in seven days was 2953 grains in a single plant: equal to 436 grains a day and 18.16 per hour. At this period in its development Mr. S. found 91 per cent. of water in the stalk; 83 in the leaf; 89 in the sheath; and 64½ in the tassel. Calculated dry, the stalk gave 10.7 per cent, ash; leaf 11.16; husks 6 per cent.

From observation and experience, we have long been in favor of partly drying green corn, rye and clover, before feeding either to milch cows, horses, oxen or mules. There is an excess of water in such food which should be evaporated by the skillful and partial curing of green forage. The addition of a little salt will render it more digestible and nourishing to the system. Corn is a valuable grass and hay plant in every State in the Union. In this relation it has not received that careful study and attention which its importance demands.

One of the most interesting features in the growth of Maize, as disclosed by the admirable researches of our author, is the great change in its incombustible elements at different stages in its life. Up to July 19, the stalks were quite brittle and had but a small quantity of silica or flinty covering around them. After the time named, silica increased rapidly in the stalk and gradually in the leaf. On the 12th July the leaves gave their maximum of phosphates. These diminished as the kernels were organized. As silica (flint) is of no account in the animal economy, and the raw material for forming seeds exists diffused through the plant when the kernels begin to grow, then is the time to cut and cure it for forage. After the maturity of the seeds, the leaves contain only one fourth as much of the phosphates and nutritive matter as they did before. This remark is particularly designed for our Southern friends, who waste valuable time in "pulling fodder;" when more and better food for stock might be had for half the labor.

The change in the amount of potash, soda, magnesia, lime, sulphur, phosphorus, chlorine, &c., are curious, and highly interesting to the critical student. For these, we must refer the reader to the Essay itself. Allowing 3 plants to a square yard, white flint corn will take in round numbers 382 pounds of earthy minerals from an acre in a crop. Omitting fractions, as we do, the figures stand thus:

Silica,	158 lbs.
Phosphates of Iron and Magnesia,	72
Potash,	48
Soda,	47
Lime,	12
Magnesia,	7
Chlorine,	15
Sulphuric Acid,	23
	382

Analyses of the ash of the kernel at different stages, of the cob, stalk, husks, sheath, roots, leaves, silk, tassel, &c., are given, which we pass over to notice briefly the "Proximate Organic Analyses of the several parts of the plant at different stages of its growth." It should be stated that the seed was planted on the 3d of June; that the crop was ripe on the 18th of October: and that the nutritive elements were searched for mostly between August 2d, and October 18th. On June 21st, when the plants were 10 or 11 inches high and made up of leaves, they contained 33 per cent of sugar and extract, calculated on the dry matter. The sugar and extract amounted to over 25 per cent on the 2d of August. From August 23d to October 18th, the decrease was about 19 per cent. The ripe sheaths are richer in nitrogen than the unripe ones, but contain less sugar extract and dextrine. "The plant during the period of tasselling, owing to the very large per centage of sugar and extract, with the respectable quantity of albuminous matter and dextrine which the stalk, leaves and sheath contain, must afford very palatable as well as nutritious fodder." In kernels there is a gradual and very uniform decrease of sugar and extract from their earliest growth till they mature, and a corresponding increase of starch. Albuminous matter also gradually increases, as the kernels advance, and at the same time casein (cheese) diminishes.

September 6th kernels are in the early stage of milk. Cob at this period is rich in albumen, casein and dextrine. These bodies accumulate at the base of the young seeds. As the kernels grow the albumen, casein and dextrine decrease rapidly in the cob. In comparing the leaves, sheaths (which surround the stalk,) stalk and cob with each other, if we judge of the value of each by the per centage of matter soluble in water and alcohol, then in nutrient bodies leaves rank first, sheaths second, stalk third, and cob fourth. Of the latter, Mr. Salisbury speaks in terms more favorable than our observations have led us to believe were strictly warranted.

We have given but a meagre synopsis of this most compact and valluable Essay to which we shall often have occasion to turn for reliable information.

AGRICULTURAL CHEMISTRY.

One of the most useful and scientific lecturers on Agricultural Chemistry in England, is J. C. Nesbit, Esq., F. G. S., etc. Speaking of farm-yard dung, feeding sheep, and plowing in green crops, &c, he offers the following important suggestions:—

"Let us begin with the far-famed farm-yard dung, which is supposed to be so superior to all other things. It is which grows the crops, and which, in the estimation of the farmer, is not surpassed by any possible combination of substances. Now, what is this farm-yard dung? It is formed by acting upon vegetable matter in some way or other. You either take a quantity of vegetable matter, and pass it through the stomachs of animals, where it is acted upon, and the refuse pass out, or you put vegetable matter—as straw or litter—in the yards, and allow the excrements of animals to be mingled with it, and a slow decomposition to take place. The whole being commingled and mixed together is known by the name of farm-yard dung. Now, a very little consideration will show that the whole of the matter which is found by you, gentlemen, to be practically so useful on the farm is merely derived from vegetables; so that you are, in fact, applying the remains and refuse of vegetables to renovate the land. This is the whole secret of farm-yard dung: it is vegetable matter, which, when partially decomposed, is re-applied to the land, where it forms vegetables over again; so that you are continually working as it were in a circle. Thus the same particles of matter imported on the farm perhaps in the shape of oil-cake, first re-appear in the shape of a turnep, again as barley, now as beef—now as wheat—the cycle of changes continues until the identical particles are exported from the land as beef or mutton, or as grain.

Now I hope I shall be able to offer one or two ideas with respect to the origin and nature of this farm-yard dung; and let me say we can never have our ideas too near the truth respecting the origin and nature of that which is so constantly under our notice. Some gentlemen have got an idea that animals have a mysterious power—of what nature it is impossible to say, but they imagine that it really exists—a mysterious power, by means of which they can change a turnep, or a quantity of oats or greens, into a superior manure for land; and that food must have passed through the animal before it can be really useful on the land. This is the idea entertained on this subject by ninety-nine farmers out of a hundred. I must proceed this evening to disabuse your minds of that erroneous notion; I must tell you that the manure obtained from animals is always dependent as regards its value on the food which the animal eats; and that the excrements of animals are always less valuable and less powerful in manuring principles, than is the food consumed by those animals while producing the manure; that green food plowed into the land, will give more manure to the land than the SAME FOOD eaten by animals. Not that I would recommend you, as a rule, to plow in your vegetables; but I wish you to remember that your sheep can deposit nothing on the land but what they have first received from the food; and that under all circumstances, the amount deposited will be less than that received. Now let us [illegible] a little at this point. You know that in one of our ordinary fire-places, when coals are put into the grate and a light is applied to them, an action takes place which makes the air above differ from that below the fire: without any knowledge of the name of a single chemical element, you have only to apply your plain common sense in order to be aware that an action takes place between the air and the coals producing heat, and that the air above the coals (in the chimney) is very different from the air below the coals, which enters the grate. Now you give an animal a certain amount of food; that food is taken into the system: the constant action of the lungs, which inspire and expire the air, has the effect of bringing into the system a large amount of air. This air acts upon the food which is taken into the system. By the combustion or burning of a certain amount of that food animal heat is produced, which keeps up the temperature of the animals, so that they get a higher temperature than the surrounding atmosphere. The expired air contains the result of that combustion, and resembles in composition the air of the chimney; another portion of food not used for producing animal heat is laid upon the bones, forming muscle or fat; and what the bullock itself has no use for is cast out of the system. Now, you observe at once that the animal by acting in this way on the food, actualy deprives it of certain constituents, and at the same time makes it less in amount; so that, in fact, the only real action is one which takes away certain portions of the food and renders the others more quickly soluble. All the soluble parts of the food are passed out in the urine, and all the insoluble parts in the excrements. There is a regular process performed in the laboratory of the stomach, the effect of which is what I have thus described. Now, the same thing takes place in the decomposition of vegetable matter. You lay down a large quantity of straw, and you let the water fall upon it, as well as the excrements of animals. You all know what takes place. The heap gradually heats, and this gradual heating is nothing more than the effect of the gradual action of the air upon it. Certain portions of the vegetable matter thus acted upon by the air are consumed and taken away, and the bulk becomes less; so that, even in the process of acting on vegetable matter, you loose a portion, and it goes off into the air, just in the same way as the solid parts of coals pass into the air by means of the chimney. You all know that the solid parts of coal disappear and leave nothing but ash behind. The two cases are, in fact, identical. I may refer you to the case of a hay rick put up in too damp a state. In that instance, an immediate action takes place from the contact of the air with the moist hay, and that action continues increasing, until, at last, the whole bursts into a flame. Now, gentlemen, in either case, in the making of manure, there is a diminution and a loss. You must have seen the reek going off from the dung-heap, and there are other substances which also disappear in the air which you cannot see. If what I have stated be true, you will draw the conclusion for yourselves, that vegetables plowed at once into the land furnish a greater amount of the substances adapted for the vegetation of plants than they would supply if passed through the stomachs of animals—that is to say, to give a plain, practical illustration of my meaning, if you chop up an acre of turneps, making them sufficiently small for decomposition, and plow that acre of turneps into the land, you will have more manure in the soil than if you fed a flock of sheep upon it, without the addition of oil-cake or any other extraneous manure.

Again, take any other green crops, such as rape, and plow them in, and you will have a larger amount of substances calculated to bring forth the next crop than if you passed that acre of rape through the bodies of animals. You may call this theory, gentlemen, but it is absolute fact: there is no theory about it. It has been tested by practical men, and I will give you one or two instances. A gentleman heard me make this statement when I was lecturing at Maidenhead—and let me remark that the gentlemen who composed my audience on that occasion were not quite so decorous as you gentlemen have shown yourselves this evening: for I heard some of them call what I said "gammon." (Laughter.) Now, notwithstanding its being "gammon," a certain gentleman determined to try whether or not the case was as I had represented. A gentleman named Mr. W. Trumper, of Dorney, near Windsor, having twenty acres of rape, plowed in one or two acres in different parts of the field. The rest was fed off by sheep. These sheep were luxuriating every day on a beautiful meadow adjoining, and were folded at night on the rape. I was invited last midsummer but one to see the effect of this experiment; and about a dozen practical men were invited to meet me upon the occasion. The land was gone over, and I could point out every place where the rape had been plowed in. The wheat stood eight or ten inches higher than the rest; and in the judgment of these practical men there was more than a quarter of an acre difference between the places where the vegetables had been plowed in and the places where the sheep had been fed off. More than that, I happened to meet Mr. Trumper at the annual dinner of the Reading Farmers' Club, when he told me the turnep crop succeeding was much better, and he fully expected to see it in the barley.

Now, there can be no doubt, the plowing in of turneps will have a similar good effect, and perhaps many of you gentlemen have in your recollection certain instances in which, owing to the severe frost rotting the turneps, it was necessary to plow them into the land; and when, contrary perhaps to the expectatien of the farmers, a capital crop of barley was the result. I would not recommend you to forsake the feeding of sheep; I am now merely dealing with the facts of this case. It is a question of pounds, shillings and pence, whether it is best to feed the turneps off or to plow them in, and therefore a case for the exercise of your individual judgments. In the instance of which I was speaking at Maidenhead it was found more favorable to plow in than to feed off, as that year the crops were excessive and the sheep high in price. A gentleman there was actually offering to give £2 an acre to any person who would send a flock of sheep on the farm to feed off the turneps. I at once saw it would be better to spend 15*s*. per acre for plowing in, and 25*s*. in guano, as the crop of barley would assuredly be better. Now, gentlemen, at the end of the lecture I shall be happy to hear any observations which may occur to practical men on this point, and to answer any objections which may be urged; and it must be particularly noticed that I leave out of the question for the present the mechanical action of sheep in treading the land, so necessary on some soils, and speak merely of the absolute amount of manure. To pursue the subject of this manure a little further, you see at once that the manure will vary as the food varies. If you use straw, or oil-cake, or turneps, the quality of the manure will vary accordingly, as the composition of these substances varies; and it will vary because the animal takes away only a certain proportion from each of these, and casts out the remainder as excrements. But the manure will vary not only as the food varies, but according to the age of the stock."

Young animals extract more nutriment from their food than old ones, especially if the latter be fatted. But it is more profitable to have the grass, roots and grain eaten by an animal, transformed into *flesh*, by its growing and gaining in weight, than to have the elements of flesh in richer manure. The difference between feeding 1000 pounds of clover, rape or turneps, (estimating the crop dry,) to sheep or cattle, and plowing in the dung and urine yielded by the quantity of food named, and plowing in the crop without being eaten at all, is this: In the latter case, the soil below the surface gains 1000 pounds of vegetable matter; in the former case not far from 400 pounds including the salts in the urine which falls on the ground. Although 2000 lbs. of dry forage will yield only some 800 of solid excrements; yet the latter are worth more for all agricultural purposes than 800, or even 1,200 pounds of the vegetables from the consumption of which the dung and urine were derived. It will take at least 500 lbs. of dry corn or wheat to form 100 of the dung of pigeons. Their dung is the *ash* of the seeds consumed which like wood in a stove were literally burnt in their capacious lungs and circulating blood.

The true rule in reference to feeding off clover and grass, or plowing them in without feeding is this: When a soil is reasonably rich in mold, (organized matter,) it is good economy to pasture clover or grass, closely, before breaking up for wheat or other grain crops—leaving the droppings of the animals on the land to fertilize it. On the contrary, when the soil is thin and poor in vegetable mold it is sound economy to turn in all the grass, clover, pea vines or buckwheat one can. A friend of the writer will plow in three crops of buckwheat this season; and another capital farmer will turn under a crop of winter rye, one of oats and another of peas, to enrich the soil.

Some apply a coat of caustic lime to sweeten the decaying vegetation. We have so often explained in public lectures and agricultural journals, the process by which cultivated plants draw their mineral food from the sub-soil, and their organic nutriment in a good degree, from the atmosphere, that it seems unnecessary to repeat the story. And yet, the great body of American farmers, both North and South, have hardly commenced enriching their estates by fertilizers taken from the air above and the earth below, which a bountiful Providence has furnished ready to their hands. Here and there one has stumbled on the discovery that the lifeless earth thrown out of a well, a cellar or deep ditch, has fertilizing qualities. Such marls without vegetable matter will often grow grass, wheat and corn—evidently deriving carbon from the atmosphere, in rains and dews. The riches in the sub-soil, which deep draining and sub-soiling will develope, are not at all appreciated.

FAIR OF THE STATE AGRICULTURAL SOCIETY.

In many respects the Fair at Syracuse excelled all preceding ones of the Society. Several thousands of visitors were in attendance more than were ever seen at any previous Rural Festival in this State, or the Union. The general and deep interest taken in these annual exhibitions of the choice products of agricultural and mechanical skill, indicates a juster appreciation of the character and importance of the Farmers and Mechanics of the country. Instead of being looked down upon with ill-concealed contempt, as something servile, by the learned, the wealthy and the distinguished, productive industry is now beginning to be looked *up to* as the source of all power and property in the land. This is looking in the right direction. The union of highly cultivated intellect with manual labor, successfully exerted in the field, the garden and the work-shop, makes a new era in the history of agriculture and the mechainic arts.

To foster both mental culture and artistical improvement, annual Fairs are of inestimable value. They furnish cheap and agreeable facilities, by which fifty or one hundred thousand people may teach each other a thousand useful lessons. Farmers see, and have an opportunity to purchase, hundreds of new contrivences for abridging human toil in all tillage, haying and harvesting operations. Improved implements of husbandry constituted a prominent feature of the exhibition at Syracuse. Manufacturers and dealers from Boston, Albany, Geneva, Rochester, and other places, made a large and attractive display. It is impossible for us to give full particulars, where the articles exhibited are so numerous, and often complicated in their structure. We shall publish a list of the premiums, which will give names, residences and opinions of competent judges.

Several Agricultural Warehouses were very fully represented. Rapalje & Briggs, of Rochester, exhibited a great variety of superior implements, machines, tools, &c. They received the premium for the greatest collection—embracing implements of husbandry of all descriptions. The Albany Agricultural Warehouse, (H. L. Emery,) was largely represented, as usual. Among the implements from this establishment we saw, in successful operation, the one and two-horse Railroad Powers, threshing grain with the well known overshot thresher—sawing wood with the portable Saw-Mill, and cutting stalks, hay, straw, &c.—without any apparent exertion of the horse, except keeping in motion on the inclined plane. Mr. E. also exhibited some 30 plows, 18 hay cutters, 6 corn shellers, and 12 churns of different patterns and prices; two of Emery's corn and seed planters, and any quantity of Partridge's celebrated cast-steel hay and manure forks, many of them of extraordinary high finish. The articles from this Warehouse amounted to upwards of $2,200, over $1,600 of which were manufactured in this State. The proprietor has put in operation, during the past season, one of the most extensive machine and implement manufactories in this country, which is now so pressed with work as to be in constant operation, day and night. E. J. Burrall, of Geneva, exhibited a large assortment of well made machines and implements—among them some new inventions and improvements, which we think will prove of great value. He obtained the premium for the greatest and best collection manufactured within the state.

Of Neat Cattle the show was highly creditable, there being some 300 on the ground. Mr. Hiram Sheldon, of Cayuga, exhibited a fat ox which weighed 3,400 lbs. Others only a little smaller were present. A fat cow which had been spayed, weighed 2,200 lbs. There were several yokes of matched oxen which attracted much attention. Mr. L. G. Morris, of Westchester, had 11 head of grades and pure blood cattle at the show. Mr. Sotham, of Black Rock, had a fine lot of Herefords. The Devons, however, were more numerous than any other breed, and seemed to be quite popular. Those exhibited by Messrs. Bingham, Washborn, and others, attracted much attention. The short-horn Durhams appeared to good advantage, and we believe sold well. Mr. S. P. Chapman, of Clockville, exhibited several very fine animals—among others, his bull "Buena Vista,' (portrait and pedigree in our August number,) and cow "Charlotte." Col. Sherwood exhibited the animals imported by Mr. Stevens, and noticed in August number of Farmer. Messrs. Z. B. Wakeman, of Herkimer, Bell of Westchester, and other gentlemen, contributed to the show of short-horns. We were not present at the sale of stock.

The show of stallions, brood mares and colts, and of matched and single horses, was decidedly the best that we have ever seen in the State. We regret that we are unable to particularize.

Of Sheep we counted some fifty pens, and altogether the number on exhibition was unusually large. Merinos, Saxons and Southdowns were most numerous. Some of these were choice animals. There were a few mammoth Leicesters from Canada.

Swine were not numerous, nor particularly noteworthy. There were a few extraordinary fat pigs and large hogs, of both sexes.

In Poultry the show was barely respectable.

Dairy products were less, in the aggregate, than we have witnessed at preceding Fairs. The cheese looked tempting, but we did not belong to the "tasting committee" in that department. The butter was small in quantity, although handsomely put up.

In wheat flour there was a pretty sharp competition; but in corn meal the Georgia State Fair would have beaten the samples out of sight.

Stoves, household manufactures, needle work, and other fabrics of fancy or utility were almost endless in variety and beauty.

Floral Hall was neatly arranged, and embraced a fine display of fruits, flowers, vegetables, &c. This department, and the Pomological Convention, is more particularly noticed in our Horticultural pages.

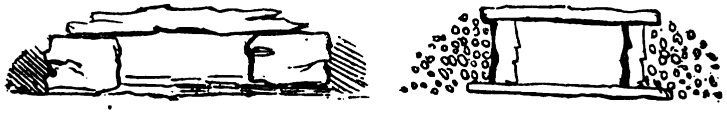
We did not hear the address of Prof. Johnston—although, by competent judges, it is spoken of in terms of the highest praise. Of course it will be published.

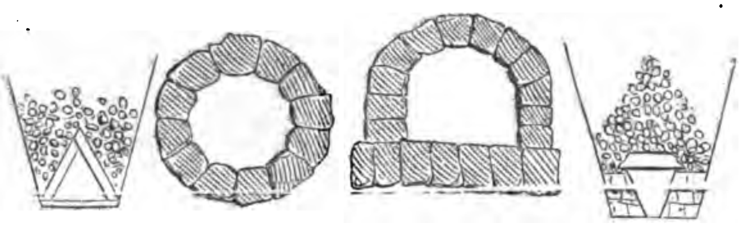
Many gentlemen of distinction from abroad, were present—and all with whom we conversed, expressed themselves instructed and gratified by what they saw at the Fair. The grounds and buildings, tents, &c. were well arranged; and good order was preserved, considering the unusually large number of persons in attendance—reflecting much credit upon Col. Johnson and other officers of the Society.

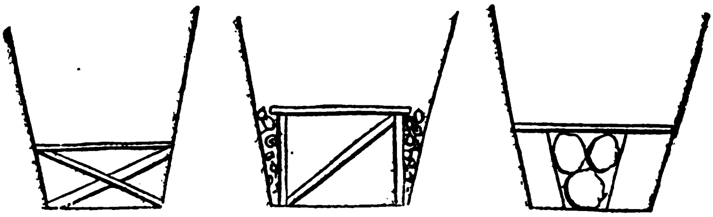
THOROUGH DRAINING.

ONE of the most valuable papers in the large volume of Transactions of the N. Y. State Agricultural Society for 1848, (which volume is an honor to the Society and Country,) is an article on the subject of *Thorough Draining*, from the pen of JOHN DELAFIELD, Esq., of Seneca County. Our columns are too much occupied in this number to admit the re-production of all that Mr. D. has written on this subject in the work before us. He gives a lucid and interesting account of the geological character of the soil and rocks of his county, and clearly indicates, from personal observation and experience, the necessity of under-draining to remove the excess of water in the subsoil, which greatly impairs its adaptation to wheat culture. After stating that all main drains should be at least *three feet deep*, and lateral ones thirty inches, he adds:

"Many and various are the contrivances used in the construction of drains, and as usual, in all projects used as *expedients*, they are faulty, and soon become useless. Among the most approved are the following:



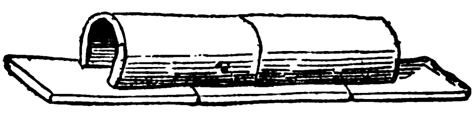




Drains made by masonry are intended for *mains*, but they are too expensive for our farms. The square stone and the triangular stone drains are probably the best, where stone of proper dimensions can be procured on the field to be drained. If however, stone is to be hauled from any distance, then a tile drain, which will be described presently, is much the best and cheapest. The other drains, as figured, have been used with success, *while they lasted*; but few ever perform their duty above two or three years.

In all matters affecting our property, any prospect for its improvement needs a very scrutinizing examination, that we may first be assured of its necessity, and then the best and cheapest manner of accomplishing the change. The necessity for improvement by draining has, I hope, been clearly demonstrated; and the best method for locating and opening drains has been indicated; it is now intended to draw your attention to the most approved drain of the present day.

When you have judiciously marked out your field to be drained, and staked the course of the several trenches, let them be accurately dug at least three feet deep, and not over thirty feet asunder, for thorough draining. The trenches or ditches must run *down* the slopes, and *not across* them, that the water may go off freely. Dig the trenches as narrow as may be, so that a man can clean out the bottom and construct the drain; the width at bottom for the main drains need not exceed ten inches, and for all other drains not to exceed seven inches. Be careful to have the grade on the fall of the water not less than one foot in one hundred—remembering that a greater fall will more readily prevent the accumulation of sediment. Cut the main trench first all the way through the field, and do not lay in the materials until you have ascertained that the dimensions and grade are correct throughout. You are now ready to construct the drain *with tyles* of a semi-cilindrical form. These tiles are made of burned clay of various lengths, from 12 to 13, 14 and 15 inches, the width and height being 2½ by 3½ inches, and 4 by 5 inches. When these tiles are well made they are smooth and heavy, and ring when struck with a hard substance. They are so strong that a man my stand or leap on them without breaking them. The drawing now exhibited will explain the form of the tile, and the manner of laying them in the trench:



You will perceive that the tiles are laid upon flat tiles, called soles, and this is brought to your notice, because in this country, drains have been made without any support for the tile, where the bottom has been a hard clay. This practice does well for a few years, but it must be evident, that if the drains ever carry a rapid run of water, the tiles must inevitably sink, more or less, by the wearing of the bottom, and thus in time destroy the drain. To prevent this mischief, soles are made of convenient widths and lengths on which to set the tiles, taking care to avoid placing the joints in contact, by which arrangement the tile has a firm and uniform bearing. Having your tile conveniently placed along the trench, they must be laid with due care, first cleansing the trench, so that the soles may lay solid. The tile being laid, it is best to cover the whole with a turf sod, and fill the trench with your plow or shovel, as may be most convenient. Many use straw to cover the tile, but a turf cut about 18 inches long and 12 inches wide, will just fit and perfectly cover them, with the grass side down. The larger and smaller drains are all thus constructed, and when properly made, will never need repair or further attention.

You must have noticed that for thorough draining the trenches are directed to be dug at distances thirty feet apart: and this is probably the greatest distance at which drains will act so as to *draw* the water from the earth; in this respect we must be guided by the character of the soil, and experience will probably teach us that a distance of forty feet is an extreme limit for *very thorough* draining.

This is the method of draining now so extensively used in other countries, and about to be extensively adopted in our own; and these tiles are found to be far superior to masonry, to stone, to wood, or any other kind of drain hitherto tried. It is this system or method which has enabled the farmers of England and Scotland, of late years, to raise twice the numbers of bushels of wheat from an acre, more than we do. It is true, necessity has claimed from them great exertions to feed their over populous islands, and *necessity* being a sharp master, has elicited, and will continue to bring forth, every talent useful for the comfort of man. Let us for a moment examine the action of this master motive among English farmers; and we learn from our talented countryman, Professor NORTON, now attached to the chemical and agricultural department of Yale College, that he spent much time in Great Britain examining their agricultural systems. Since his return, he tells us he visited the farm of Mr. Dudgeon of Spylaw, at Kelso: the surface of his farm was stiff, the subsoil a close clay. Mr. Dudgeon had drained about 900 acres!! making a distance of drains equal to 300 miles! he erected a tile work on his own farm, which turned out not less than 400,000 tiles in a year. The drains which he laid raised the rental of his land immediately, from $2,50 to $6,50 per acre, and after enumerating other successful results from tile draining, Mr. NORTON says, "I have known instances in Scotland, where the *first crop* repaid the whole expense of the improvement." And again, at an agricultural meeting held at the farm of Sir Robert Peel, a farmer declared that "he could not afford to deprive himself of the benefits of drainage; for he had drained portions of his ground at a cost of from $8 to $12 per acre, five feet deep, with one inch pipes, and the very first crop of wheat remunerated him for the whole cost." So also, close at home, gentlemen, we have an instance of very successful drainage; one of our own enterprising farmers has done nearly as much in point of value, though less in extent.

The inquiry as to the expense or cost of these drains, now demands our attention. Not long since, pattern tiles for drains were procured from Great Britain, and tiles of two sizes have been made and used in Seneca county. The cost has been at the rate of twenty cents per rod for the smaller size, and forty cents per rod for the larger tile; soles have not been used.

We have seen that thorough draining requires drains at parallel distances of 30 feet; let us say of two rods or 33 feet, then an acre would need seven drains of 13 rods each in length, in all 91 rods;
this at 20-100 for the tile gives, say - - $18 20
Add for discharge, laying, &c. 18-100 per rod, 16 38

Making the lowest cost per acre, . - - $34 58
and 38 cents per rod."

Before we proceed, let us examine and compare the cost of making a common stone drain, the stone being on the field to be drained. Thus, a man and team will draw stone in one day sufficient to build
about 5 rods of drain, - - - - - - - - $1 50
Cost of laying the stone at 6-100 per rod, - 30
Cost of the trench at 18-100 do. - 90

Cost of 5 rods common stone drain, - - - $2 70

or 45 cents per rod, thus shewing a difference of 16 cents per rod in favor of the drain tiles. To facilitate your calculations of cost of the tile, I would state that for every acre, drains cut

	12 inch tiles.	18 inch.	14 inch.	15 inch.
At 15 feet apart, require,	2,904	2,681	2,489	2,323
30 do. do.	1,452	1,340	1,245	1,162
33 do. do.	1,320	1,218	1,131	1,056
36 do. do.	1,210	1,117	1,037	968

The great cost per acre under either of these systems, requiring capital for the outlay, and notwithstanding the rapid return of the cost by the additional products, presents a serious impediment to their general adoption, and compels us to seek some method for the more economical supply of tiles. This can and will be done, and in the course of another year these tiles will be afforded at a cost of 15 cents per rod or less. This is to be accomplished by machinery, and I am pleased with the authority to say that a machine is now making in England for use in this county (Seneca) which will make from 8 to 10,000 tiles per day of perfect form and solidity. The most eminent agriculturists of Great Britain have been consulted in reference to this particular machine, and no doubt is entetained, but it will lead the way to an economical supply of tiles for draining. Labor in this country is too costly in proportion to the products of our farms. We are now, and for a long time will be, compelled to tax our ingenuity to place the farmer on a level with other pursuits, where the profits are larger, admitting higher prices for labor. Let us however, be thankful and content, for if our profits are not so large, we have reason to believe they are more sure and enduring than is derived from other professions.

Machinery is to accomplish our much desired object, and we will close this too extended notice by exhibiting a few results to be derived from it. Supposing that as farmers we are as intelligent as the English and certainly not less industrious, if, then, we determine to drain by means of tiles, a field of ten acres, and that the machinery about to be introduced, or any other machine, enables us to procure tile at a cost of 12 cents per rod, the cost of our drains made in a lasting and perfect manner, would be at the rate of 30 cents per rod, or $27.30-100 per acre.

A field thus drained and cultivated may reasonably be expected to yield an increased ratio, equal to an English field, all things else being equal. Then, if our average crops have been 20 bushels per acre, (and many of our farms range much higher,) we shall now receive 40 bushels. But suppose we obtain only 30 bushels per acre, you will easily see that the profit has been increased from about $8 per acre, to $18 per acre. In other words, the field of ten acres, at a cost of $273, gives a return in nett profits of $180.

One acre yielding 20 bushels at $1 - -	$20 00	undrained
Cost of cultivation, - - - - - - -	12 00	
Profit, - - - - - - - - - -	8 00	
Increase product by draining say 10 bu.	10 00	
Total profit when drained. - - -	$18 00	

Then 10 acres will give $180, a ratio which soon returns the outlay. There is room here for large deductions, and yet leave us well satisfied with the benefits of thorough draining; and from the facts given every man can make his own estimates as to the value of the benefits claimed.

In conclusion, let me say, that your plants when thus protected from excess of moisture, will obtain a more vigorous growth with a firm straw, preventing in a great degree its lodgment by storms. The grain becomes more plump; it ripens *uniformly*; and of course it is heavier per bushel. The straw possesses the elements of better fodder for your cattle and sheep, and makes better manure. Your fallows will be more easily and earlier worked; they will be less infest-with weeds, and your plow may run much deeper.

Such, gentlemen, are the advantages which have been again and again derived by others. Why then may not each one of us, be at least as fortunate? It may be urged that few farmers can spare so large an outlay on their farms, as we have spoken of; true, I admit it; but let us remember that our freedom was not obtained in a day, nor do I believe in the benefit, comfort or advantage of steam car speed in our farming operations. Caution is always necessary, and I would not advise any farmer to undertake the draining of more than one or two acres at the outset.—Sure, from what I have seen and learned, that he will double the quantity every spring or autumn, until his farm shall always blossom and bear fruit, from every acre, far beyond his needful wants."

CASTOR OIL PLANT.—(Ricinus Communis.)

BY WILSON HOLT, OF ILLINOIS.

THE territory of country engaged, even partially, in the cultivation of this vegetable is quite limited —being confined for the most part to Southern Illinois and a small part of Missouri, with perhaps an isolated county here and there in some of the Southern States. This narrow territory is not the result of uncongenial climate, for it can be successfully grown as far north as Maine, where it is sometimes seen in gardens as an *ornamental plant.* The cause of the circumscribed territory is partially the result of want of information on the subject of growing it, but more particularly the limited demand, which is often more than supplied by the small section of country in which it is known and raised. It is cultivated entirely for the seed, no other part of the plant being of any use except for manure, perhaps, which is not here regarded.

The season of planting ranges somewhere between the middle or perhaps the first of April and the early part of May. The earlier the better, if the season be favorable, as it is killed by the first frosts of autumn. The crops, therefore, depend very much upon the time the season of harvesting commences. The ground in which it is planted should have a deep rich soil, deeply and thoroughly plowed, and the surface finely pulverized. After it is well prepared, it should be laid off in parallel rows both ways, not less than four feet each way, and every fifth row six feet one way for the convenience of harvesting. If the seed be good, four beans in a hill are enough to plant unless there is a prospect that the cut-worm will be troublesome, in which case eight or ten will not be too many. At the end of two weeks after planting, now and then one will be seen pushing its way through the earth to the light, and in four weeks nearly all will appear. Some practice soaking the seed three or four days before planting, which practice is a very good one. It brings forward the crop, which is an important consideration. When the plants are about six inches in height, the hoe and plow should be often and thoroughly used among them, that the earth may be kept loose, and the grass and weeds in due subjection. Twice hoeing is commonly sufficient, and even one may do very well in clean ground if one be skilful in the use of the plow.

The labor of raising the Castor Oil Bean up to the period of harvesting is about the same as is required by corn. The appearance of the plants at first is very dimunitive, bearing no sort of comparison to their ultimate height and magnitude. They often attain the height of eight feet, and with their numerous branches and massive leaves present quite a formidable appearance. I have many plants on my farm that now measure full eight feet in height, and promise yet greater elevation.

The number of plants allowed to remain in a hill should not exceed two, and many who have had much experience in the business say that one in a hill is enough. Mine, this season, were thinned down to one, and in many parts of the field are nearly as dense as a cane brake. I am of the opinion that, as a general thing, one will be found more profitable than two. Two may produce more beans in the fore part of the season, but take the whole season as a criterion, one will give the larger crop. One throws out far more branches in proportion, and produces much larger cones of bolls.

The harvesting season usually commences about the middle of August, and continues until "Jack Frost" summarily despatches the whole crop remaining. At the first the labor of harvesting is comparatively light, but when the season fairly sets in, four acres will keep one hand quite busy. The process of harvesting is usually as follows:—a plat of ground several yards square is cleaned off and made as nearly smooth as can be, called the "popping ground," where the beans are taken to be "popped out." A horse attached to a one horse slide or sled is driven along the wide spaces already mentioned, and the beans gathered and taken to the ground. The beans do not grow in long pods like most beans, but in diamond shaped bolls, generally containing three beans each, attached to a stem like grapes.

Many of the clusters of bolls are twenty inches long, and I have seen those that measured two feet; and all are nearly in the form of a perfect cone. The beans in the bolls are separated from each other by a thin membrane, and the bolls are armed with very flexible spikes. The clusters are cut with a knife, and when the beans are ripe the bolls contract, when the beans "pop" out with a smart report, often shooting several yards. After all have been gathered and popped out, they are separated by passing them through a fanning mill. Thus ends the labor of harvesting.

The average yield is sixteen bushels, and twenty-five is a good crop. The price per bushel may be set down at $1, though it often varies both above and below. Last year as high as $1,40 was paid, and $1,75 has been paid this year for old beans. The price will be good this year owing to the ravages of the cut-worm among the plants in the spring. The oil is extracted from them by means of screw presses similar to those used in extracting oil from flax seed. I believe two gallons is the produce of a bushel of beans. When beans are worth a dollar per bushel, oil sells at one dollar per gallon at the mill.

Now for a brief botanical description of this plant. The leaf is palmate, simple, with lanceolate lobes acutely serrate on the margin. Position of the leaf horizontal on a strong, round petiole. Connexion of petiole with the leaf, peltate. Culmor stem articulated and branching. Root palmate. The Castor Bean is about the size of the common garden bean, of a brownish color mottled with darker spots. It has neither the taste or smell of Castor Oil. To the taste it is a little sweetish, but not unpleasant. Thus endeth what I have to say of the *Ricinus Communis. Holt's Prairie, Perry Co., Ill.*, 1849.

* * *

Hints for October.—Those who wish to sow wheat after corn should do it early. Cut up your corn, and remove it entirely from the field—or adopt the plan suggested in our October number for 1847.

Potatoes and other root crops should be dug and properly secured before freezing weather sets in. If dug early, before the fall rains, and kept dry, potatoes will be much better for table use, and comparatively free from rot. Most garden vegetables should be secured, during the month.

Winter apples should be gathered before any severe frost. Those intended for long keeping, or marketing, ought to be carefully *hand-picked*, or with a fruit gatherer. If you make cider, put a pint of mustard seed into each barrel, (or pulverized charcoal, in a cotton bag, as recommended in our last number.) The mustard improves the cider greatly; it fines beautifully, and will not become hard.

Select your seed corn, if not already done; and save other seeds, such a cucumber, melon, lettuce, &c.

Hogs intended for fattening should now be shut up, and their feed increased. They will fatten twice as fast in warm as in cold weather—so hurry up the materials for pork during this month and November. Give them good shelter and dry beds.

Do up your fall plowing for spring crops at once, where you have no June or other foul grasses; but if these pests, or the wire worms are in your soil, don't plow until late—just before freezing up. (See reasons for this advice in Farmer for October, 1847.) On all soils that require and will bear it, put in the plow beam deep, and bring up the riches of the subsoil.

N. Y. State Agricultural Society.

PREMIUMS AWARDED AT THE N. Y. STATE FAIR, Held at Syracuse, September, 1849.

CATTLE—SHORT HORNS.

Bulls over 3 years old.—Best, J. M. Sherwood, Auburn, "3d Duke of Cambridge," $25,00; 2, Thomas Bell, Westchester, 15; 3, S. P. Chapman, Clockville, 5.

Bulls 2 years old.—Best, William Fullor, Skeneateles, 20; 2, A. G. Percy, Wayne Co., 10; 3, J. B. Burnet, Syracuse, 5.

Bulls 1 year old.—Best, L. G. Morris, Westchester, 15; 2, S. P. Chapman, 10.

Bull Calves.—Best, L. G. Morris, 10; 2 J. M. Sherwood, Trans and 3.

Cows over 3 years old.—Best, S. P. Chapman, "Charlotte." 25; 2, L. G. Morris, 15; 3, J. M. Sherwood, 5.

Heifers 2 years old.—Best, F. Rotch, Butternuts, 20; 2, L. F. Allen, Black Rock, 10; 3, F. Rotch, 5.

Heifers 1 year old.—Best, Ambrose Stevens, New York, 15; 2, J. M. Sherwood, 10; 3, S. P. Chapman, 5.

Heifer Calves.—Best L. F. Allen, 10; 2, J. M. Sherwood, Trans. and 3.

DEVONS.

Bulls over 3 years old.—Best, R. H. Van Rensselaer, Otsego Co., 25; R. M. Remington, Cayuga, 15; J. Blakesly, Westchester, 5.

Bulls 2 years old.—Best, D. S. Earll, Salina, 20; 2, H. N. Washbon, Otsego, 10.

Bulls 1 year old.—Best. H. N. Washbon, 15; 2, David C. Howe, Cayuga, 10.

Bull Calves.—Best, E. P. Beck, Wyoming, 10; 2, H. N. Washbon, Trans and 3.

Cows over 3 years old.—Ambrose Stevens, $25; 2, H. N. Washbon, 15; 3, E. P. Beck, 5.

Heifers 2 years old.—Best, L. F. Allen, $20; 2, E. P. Beck, 10; 3, do. 5.

Heifers 1 year old.—Best, H. N. Washbon, $15; 2, E. P. Beck, 10; 3, R. H. Van Rensselaer, 5.

Heifer Calves.—Best, H. N. Washbon $10; 2, A. Stevens, Trans and 3.

HEREFORDS.

Bulls 2 years old.—Best, Allen Ayrault, Geneseo, $20; 2, W. H. Sotham, Black Rock, 10.

Bull Calves.—Best, W. H. Sotham, $10; 2, Allen Ayrault, Trans and 3.

Cows over 3 years old.—Best. Wm. H. Sotham, $25; 2, Allen Ayrault, 15; 3, L. F. Allen, 5.

Heifers 2 years old.—W. H. Sotham, $20; 2, Allen Ayrault, 10.

Heifers 1 year old.—2d best, W. H. Sotham, $10; 3, L. F. Allen, 5.

Heifer Calves.—Best L. F. Allen, $10; 2, W. H. Sotham. Trans and 3.

AYRESHIRES.

Bulls over 3 years old.—Best, E. P. Prentice, Mt. Hope, $25; 2, L. G. Morris, 15.

Bull Calves.—Best E. P. Prentice, $10.

Cows over 3 years old.—Best, E. P. Prentice, $25; 2, R. Rome, Mt. Morris, 15.

Two years old Heifers.—Best, E. P. Prentice, $20.

One year old Heifers,—Best, E. P. Prentice, $15; 2, R. Rome, 10; 3, L. G. Morris, 5.

Heifer Calf.—Best, E. P. Prentice, $10.

GRADE AND NATIVE CATTLE.

Cows over three years old.—Best, D. S. Earl, $20; 2. S. P. Chapman, 12; 3, L. G. Morris, 4.

Heifers two years old.—Best Chauncey C. Cook, Oneida, $15; 2, David S. Earl, 10; 3, L. S. Bundy, Otsego Co., 3.

Heifers 1 year old.—Best, E. Sheldon, Cayuga co., 10; 2, P. B. Williams, Onondaga co., 8; 3, R. M. Remington, 3.

Heifer Calves,—Best, C. Merriman, Madison co., 3; 2, S. C. Parker, Trans.

WORKING OXEN.

Best team of 20 yoke, (Cortland co.) J. Barber and others, $50; Best single yoke of Oxen, E. Sheldon, 25; 2, do. J. Bryden, Oneida co., 15; 3, do. Hiram Cleft, Onondaga, Trans and 5; Disc. Best Trained Cattle, J. B. R. Church, Vernon, Sil. Medal.

Steers 3 years old.—Best single yoke, H. H. Eastman, Marshall, 10; 2, E. Sheldon, 8; 3, L. S. Bundy, Trans and 3.

Steers 2 years old.—Best yoke, B. H. Streeter, Wayne co.

$10 ; 2, do. L. S. Bundy, 8 ; 3, do. H. Sheldon, Cayuga co. Trans and 3.

Steers 1 year old.—Best, James H. Sherill, New Hartford, $8 ; 2, H. Sheldon, 5 ; 3, J. Muir, Sen. Madison co. Trans and 3 ; Boys' training steers, D. Maine, De Ruyter, Madison co., Sil. Medal.

FAT CATTLE.

Best pair of fat exen over four years old, L. Doty, Wyoming co., weight 5,244, $25 ; 2, E. Sheldon, weight 4,850, 15 ; 3, Asa Nowlen, Liv. co. weight 5,236, 10. A pair of cattle belonging to Clement Leach, Madison co. were the heaviest on the ground, weighing 5,400 lbs., but were not sufficiently fattened. They are entitled to special commendation.

Best single ox over four years old, Edmund Munson, Cayuga Co., weight. 2,512, $15 ; 2, H. Sheldon, weight 3,146, 10.

Best fat cow over 4 yrs old, Clement Leach, weight 2,066, $15 ; 2, Robert Rome, weight 1,726, 10 ; 3, do. weight 1,942, 6.

Best pair of fat steers under 4 years, R. Rome, weight 4,398, $15.

Best single heifer, J. Barber; weight 1,486, $10.

Grass fed.—Best pair of fat oxen over four years old, E. P. Beck, weight 3,464, $20 ; 2, Israel Boles, Cortland co., weight 3,398, 12. Best steer under four years, E. Sheldon, weight 1,560, $8 ; 2, John Reeves, Lysander, weight 1,884, 3 ; 3, J. R. Burnett, Syracuse, Trans. Best cow over 4 years old, R. Allen, Syracuse, $10.

FAT SHEEP.

Middle Wooled over two years..—Best, J. M. Sherwood, $5 . 2, do. 3.

Under two years.—Best, Z. B. Wakeman, Herkimer, $5 ; 3, Thos. Terry, Mt. Morris, Morrell's Shepherd.

Long-Wooled over 2 years.—Best, John Reeves, $5 ; 2, do. 3 ; 3, do. Morrel's Shepherd. No. 202. a Long-Wooled Sheep, owned by James Bicknell, Erie co, entitled to special notice. Recommended for a premium.

HORSES—*For all Work.*

Best Stallion over 4 years old, Wm. Ferguson, Marshall, "Bay Kentucky Hunter," $20 ; 2, Nottingham & Allen, Palmyra, "Young Norman." 12; 3, Bay Horse. owner's name not asoertained. 8; 4. O. Howland, Owasco, "Sir Henry," Youatt.

Brood mares and foal.—Best. Reuben R. Burt, sorrell Mare and Colt, $20; 2, Edward Munson. Cayuga co., bay Mare and Colt, 12; 3, Anthony Decker, Skaneateles. chestnut Mare and Sorrell Colt, 8; 4, Wm. Prior, Elbridge, bay Mare and Colt. Youatt.

Draught Horses.—Best Stallion over 4 years. Nottingham & Allen, "Young Sampson." $20; 2. Cornelius Schoby, Springport, "Young Alfred." 12; 3, John D. Spinner, Herkimer, "Sir Henry Eclipse." 8; 4, J. S. Thompson, Camillus, "Young Sampson," Youatt.

Brood mare and foal.—2. David Wemple, Mohawk. 12; 4, J. H. Lamberson, Van Buren. Youatt.

Blood Horses.—Best Stallion over 4 years. W. W. Huff, Buffalo. "Lance," $20; 2. Dow, Clark & Earl, dark gray Stallion, 12; 3, Simon Schermerhorn, Rotterdam, "Young Waxy," 8; 4, Pardon Austin, Manlius, "Young Eclipse," Youatt.

The thorough bred horse "Consternation," owned by J. B. Burnet. Syracuse. to whom was awarded the first premium at Utica, in 1845. was shown, and the committee consider him one of the best horses which came under their observation.

(The horse "Midas." owned by Mr. George Parish, of Ogdensburgh, was exhibited without being entered; the committee would have awarded him the second premium, if properly entered.)

Three year old Stallions and Mares.—Best Stallion, A. Butler, Wolcott, "Young Mogadore, jr., $15; 2, E. Moore, Cherry Valley, 10; 3, H. S. Marsh, Syracuse, Youatt; 4, W. Norton, Wayne co., Trans.

Mares.—Best, Elias Thomas, Oswego co., $15. No others exhibited deserving of a premium.

Two year old Stallions and Mares.—Best, Frank Brown, Ridgway, $10; 2, R. O. Arthur, Ticonderoga, 5; 3, J. Van Hoesen, Augusta, Trans.

Mares.—Best, John J. Bushart. Fonda; $10; 2, N. R. Williams, Oneida co., 5; 3. J. N. Holmes, Hastings. Trans.

One year old Colts.—Best Stallion. J. Muier, sen., Hamilton $5; 2 J. Hansenfrats, Youatt; 3, Nathan Souls. Clay, Trans.

Mares.—Best, N. B. Van Slyke, Sennett, $5; 2, S. A. Gilbert, Hamilton. Youatt.

Matched Horses.—Best pair, Harvey Gould, (bay Horses,) Orleans co., dip. and $15; 2, Thomas S. Clark, (bays,) Orleans co., 10; 3, Amos Lewis, (bay browns,) Tompkins co., 5; 4, H. Otis, Jordan. $5.

Geldings.—Best Gelding, dapple gray, owned by Arden Merrill, Rome, to whom the first premium was awarded at Saratoga, in 1847, and a certificate is now given pursuant to rules of society.

1st Prem., H. L. Barker, Clinton. dip. and $10; 2, S. S. Vaughn, Jackson, Mich., 8; 3. John Legg, Skaneateles, 6; 4. Nelson Boomer, Jefferson co., 4; Disc. to John B. Miller, Utica, for his bay horse. Vol. Trans : Wm. H. Sanders, Clyde, Wayne co., sorrell Colt, do ; W. C. Chapman, Aurelius, gray horse, do.; H. Eaton, Syracuse, gray horse, do; all of these last being excellent horses, and worthy of the notice of the Society.

SHEEP.—*Long Wooled.*

Best Buck over 2 years. Geo. Swails, Sodus, $10; 2, Lewis P. Allen, 8; 3, Charles N. Hudson, Onandaga county, 5. Best Buck under two years, Thos. Terry, Mt. Morris, $10; 2, W. Bathbone, Springfield. 8; 3. Charles N. Hudson, Onondaga co., 5.

Best pen five ewes over 2 years, Thos. Terry, $10; 2. W. Rathbone, 8 Best pen five Ewes under 2 years, Geo. Swails, $10.

Best pen five Buck Lambs, Jas. Bicknell, Aurora, $8; 2, Thos. Terry, Morrell's Shepherd and 3 .

Best pen five Ewe Lambs, Charles N Hudson, $8

Middle Wooled.—Best Buck over 2 years, Z B. Wakeman, Herkimer, $10; 2. J. M. Sherwood, Auburn. 8; 3, L. F. Allen, 5.

Best Buck under two years, J. M Sherwood, $10; 2, Wm Robson, Westmorelend, 8; 3, Z. B. Wakeman, 5.

Best pen five Ewes over 2 years, Wm. Robson, $10; 2, Z. B. Wakeman, $8; 3 J. M. Shrwood, 5.

Best pen 5 ewes, Z B Wakeman, $10; 2d, E. R Dix, Vernon, 5.

Best pen five Buck Lambs, Z. B. Wakeman, $8; 2. W. Robson, Morrell's Shepherd and 3.

Best pen five Ewe Lambs, Z. B. Wakeman, $8, 2, Wm. Robson, Morrell's Shepherd and 3.

Merinoes.—Best Buck over 2 years old, N. M. Dart, Harpersfield, $10; 2. Joseph Blakesley, North Salem, 8 3, J.M.Sherwood. 5.

Best Buck under 2 years J. D. Patterson, Westfield, $10; 2, D. S. Curtis, Canaan, 8; 3, J. M. Sherwood, 5.

Best pen five Ewes over 2 years, J. M. Sherwood, $10; 2, N. M. Dart, 8; 3, Randall & Milliman, Clay, 5.

Best pen five Ewes under 2 years, J. Blakesley, $10.

Saxons.—Best Buck over 2 years. S. H Church, Vernon, $10; 2, S. B. Crocker, do., 8; 3, S. H. Church [illegible].

Best Buck under 2 years, S. B. Crocker, $10; 2. R. J. Ransom, Hoosick, 8; 3. Joseph Haswell, do., 5.

Best pen five Ewes over 2 years, S. H. Church, $10; 2, S. B. Crocker, 8; 3, Randall & Milliman, 5·

Best pen five Ewes under 2 years, R. J. Ransom, $10; 2, S. H. Church, 8; 3 Randall & Milliman, 5.

Shepherd's Dogs.—Best Shepherd's Dog, "Cammer," M. Bingham. Vt., 5.

Samples of Wool from the late importations of Messrs. Catlin & Smith, of Wolcottville, Conn, (from the flock of Baron de Spark] were exhibited, and for *evenness* of *fiber*, *fineness* and *thinness* of *fleece*, they are beautiful indeed.

The Connecticut Premium of $100 for the best 25 Merino Ewes and the best 25 full blood Merino Lambs less than one year of age, was awarded to A. L. Bingham, of Cornwall. Vermont.

SWINE.

Second best boar over 2 years old, H. N. Washburn, Otsego. $5. 2d best 1 year old, David Preston, Elbridge, 5. Best boar over 1 year old, James Gilkeson, Homer, 10; 2, B. Williams, Onondaga. 2d best 6 months old. C. R. Nichols, Bethany, 3 2d best breeding sow over 1 year old, F. Thayer, Darien, 5; 2, do over 5 months, F. Thayer, 3. Best lot of pigs, Rufus Cossett, Onondaga, 10; 2, H. N. Washburn, 5.

FOREIGN STOCK—*Cattle.*

Herford.—Best Bull. L. G. Bingham, Vermont, dip. and $25.

Devon.—Best Bull, R. C. Gapper. Thorn Hill, C. W.. dip.and 25. Best one year old Bull, M. Bingham, Vermont, dip. and 10. Best Bull Calf. Devon,) R, C. Gapper, dip. and 5 Best Cow over 3 years old,(Sally) L. G. Bingham, dip and 25; 2, (Cherry) L. G. Bingham, dip and 15·

Horses.—Best Stallion over 4 years old, (Morgan Grey Hawk,) L. D. Harlow, Hartland, Vt.. dip. and $20; 2, I. Ashford, Toronto, C. W., dip and 15; 3, Calvin Blodgett, (maj. Gifford,) Chelsea, Vt., dip and 8; 4, G. F. Wheeler, Middlebury, Vt., (Morgan Horse 5 years old) Youatt.

SHEEP.

Long Wooled.—Best Buck, Geo. Miller, Markham. C W, dip and $10. Best pen five 5 Buck Lambs, Geo Miller, dip, 5. Best pen 5 Ewe Lambs, G Miller, dip and 5.

Merinos.—Best Buck, E Robinson. Addison co. Vt. dip and $10. Best pen 5 Ewes, M Bingham and E Robinson. dip and 10, to be divided between them. For 2 very fine Ewes, L G Bingham, dip.

PREMIUMS OPEN TO ALL.

Horses.—Grey Stallion, "Young Norman,' owned by Nottingham & Allen, diploma. Best Breed Mare, chustnut, "Morgan Mare," C H Blodgett, diploma.

SHEEP—*Long Wooled.*—Best Long Wooled Buck, Geo Miller, dip. Best pen 5 Buck Lambs, Geo Miller, dip.

POULTRY.

Best lot Poland Fowls, S J Cheesebro. Syracuse, $3.
Best large fowls, J J Bushart, Fonda, 3.
Best Muscovy Ducks, C N Hudson, Onondaga, 3.
Best pair Large Geese, "Bremen," D Cossett, Onondaga, 3.
Best Java Bantums, E E Platt. Albany. 3.

FARM IMPLEMENTS.

Best Farm Wagon, D W Seely, Carlisle, Sco Co, Diploma and $5.
do Harrow, A H Fitch, Liv Co, dip and $3.
do Corn Cultivator. Jeremiah Fusk, Lysander, dip and $3.
do Fanning Mill, Jacob Clapper, Fort Plain, dip and $5.
do Corn Stalk Cutters, J C Rich, Penfield, Mon Co, dip & $5.
do Straw Cutters, J C Rich. dip and $3.
do Corn and Cob Crusher for power, H. L Emery, dip & $5.
do Clover Machine, Rapalje & Briggs, Rochester, dip & $5.
do Ox Cart, Paris Barber, Homer, Cort Co., dip and $3.

[*To be concluded next month.*]

FARMING LANDS IN EASTERN VIRGINIA.

BY S. S. GRISCOM, OF PETERSBURG, VA.

Eds. Genesee Farmer:—A few days ago I received two numbers of the Genesee Farmer, one of which contained an article from Fairfax, Va., describing that section of country, and inviting northern farmers to settle there—with an editorial note, asking further information from different sections of the South and West.

As I have spent several years in making myself acquainted with this section of country, I gladly avail myself of so good an opportunity as your valuable paper presents, to give to your readers some information respecting this section of Virginia, which I believe to to be the finest portion of the United States, for agriculturists.

If any one will examine any good map of Virginia, he will see at once that no section of the globe of the same extent, is so remarkably furnished with bold, navigable rivers. The Potomac the Rappahannock, the York, and the James, with their numerous branches, penetrate the State, from the Ocean into the mountains, and their head waters interlock with those tributary to the Mississippi. The tide flows in them from one hundred to near three hundred miles from the Ocean, and they are navigable for the largest ships, all this distance. Above the tide, on the main streams, and their thousands of tributaries, they furnish immense water power for all sorts of machinery. The soil generally, is not surpassed for natural fertility—and having seen all the eastern and northern States, I am of the opinion that there is less poor soil, and land incapable of profitable improvement in eastern Virginia, than in any State north of it. The middle portion contains lime, gypsum coal, salt, iron, &c., &c., in the greatest abundance—while the whole tide water section is underlaid with immense deposites of fossil marine shells and animals, furnishing what is called calcarious marl, rich in lime, containing sometimes as much as 90 per cent of that essential element in grain producing soil.

My attention has been chiefly confined to the tide water region, because of the great facilities for shipment of produce to all the markets of the world, at the smallest possible cost. For altho' canals and railroads are indespensable to render the products of the Farmer and Manufacturer of the interior of any value, they can never compete with the great highways which nature has made. There are in this State, now unoccupied, excellent lands, and unopened mineral and manufacturing resourses, sufficient for the maintenance of a population greater than that of the whole U. States at the present time. And I am well convinced, there is no portion of the earth which offers fairer inducements to farmers and manufacturers, than this. I think it can easily be shown, that farming here is more profitable, and pays a better interest upon capital employed in it, than in any other section of our country. This assertion does not rest upon conjecture, but can be readily proven from unquestionable data, which I can easily produce from farmers who keep accurate accounts of all their operations, and who while pursuing acknowledged imperfect systems, and have only *begun* to pursue an improving system at all, make from 12 to 22 per cent and upwards, upon the capital invested, after deducting every expense. One of the most intelligent and respectable farmers in the State, who makes no assertion without good data, told me that he could purchase lands in the marl region, and make one hundred per cent, in perpetuity, upon the capital invested, and I think his experience warranted the assertion. I am aware that all this loooks like painting high colors, but I assure you, I believe it to be sober truth, and invite intelligent farmers from the northern States, to come and see for themselves. A thorough examination will at least grátify them, and I can promise to any intelligent, respectable men, who desire to be informed, a reception by the farmers of Virginia, as cordial as they can desire.

After much careful examination, I have chosen the country bordering on the James and York rivers, as offering the strongest inducements to those who desire to settle in this State—for here the soil is superior to that of many of the more northern counties, and much of it equal in natural fertility, and susceptibility of high productiveness, to the very best in the world. Almost every where marl is superabundant. On the rivers lime, for those who prefer it, is delivered on the farms, at 6¼ cents per bushel. The winters are so mild, that there is scarcely a week when the plows are stopped by frost. Cattle and sheep live well with very little provender, and I have no where seen finer cattle and sheep than here. The country is healthy, and as the land is more opened and limed, it will be improved in this respect. It is also well watered, abounding in fine springs and streams of pure water. Figs, pomegranites, peaches, apricots, melons and apples grow in great perfection, and ripen a month or six weeks earlier than in your country. Much cotton and tobacco are raised in the southen counties, but most farmers, who are beginning to improve, are confining their attention to wheat and corn.

The facilities for the shipment of grain from this region are equal to any, and superior to most. There is scarcely a farm in this region more than 3 or 4 miles from good navigation, and thousands that have good landings on them. A friend of mine is just now shipping his crop of red wheat, about 12,000 bushels, for which he gets 104 cts. per bushel, cash, at his wharf. Excellent lands in this region, most eligibly situated, and some of them on the rivers of surpassing beauty—often with good buildings and abundance of the finest timber, which can be shipped to the northern cities at great profit—can be purchased at prices ranging from $5 to $50 per acre. In many instances the the timber judiciously managed, may be made to pay for the land two or three times over. In the lower counties, the finest oysters, fish, wild geese, ducks, turkeys, deer and other game abound.

Those persons who are afraid to live on tide water, may find lands from 10 to 30 miles west of this town, of excellent quality for grazing or agricultural products generally, in a very healthy country and often with spacious buildings and fine improvements, at prices ranging from $1,50 to $10 per acre.

I make it a part of my business, and it will give me pleasure to impart to any who desire it, more particular information respecting any section or tract with which I am acquainted. The owners have placed a very large number of farms in my care for sale, many of which are very desirable and cheap. I desire those who are seeking new homes, to come and take time to examine the whole region thoroughly—promising them all the aid in my power.—Saml. S. Griscom.—*Petersburg, Va.*, 9 *mo.* 12*th*, 1849.

LANDS IN WESTERN N. Y. AND VA.—COMPARATIVE VALUE OF RICH AND POOR SOILS.

BY CALEDONIA.

Messrs. Editors:—In perusing the Genesee Farmer, I noticed a communication from a correspondent of Fairfax Co., Va., in which he solicited the farmers of Western New York to emigrate to Virginia instead of going West. The principal reasons assigned, are on the account of its easy access to good markets, the low price of land, and the soil being easily cultivated.

The reasons are among those of these first magnitude to the farmer: but it matters very little how remote from market lands are located, that will not produce more than than the cultivator requires for consumption. Hence a good and convenient market is of no benefit or utility, unless the lands will produce a surplus beyond what the agriculturist wishes to consume; but on the other hand a good and convenient market is of the greatest importance to those who have productive lands, which not only enhances their intrinsic value, but renders them always saleable. It does not augment the price of unproductive land, by its being situated adjacent to navigable waters or a good market, for agricultural purposes; but those lands which are easily wrought, and on which good crops of all kinds grow in abundance, the facilities to market make very desirable; they are eagerly sought for, and will always command good prices.

There are some men whose means are comparatively small, who think it injudicious and hazardous to purchase our best and most productiue farms and pay a price corresponding to their productions, location, &c. They will buy third rate land because it may be purchased for $20 or $30 per acre, and will not involve them in debt but a few hundred dollars; whereas, if they had bought the first quality of land, every foot of which is, or easily may be, under a high state of cultivation, it would make the debt as many thousands. Now from which farm would a judicious farmer extinguish the debt for his land first, from the low priced or the other? The $20 farm in the first place has an inferior soil by nature, and by tillage it has become less productive than at first; therefore, in consequence of the uncertainty or failure of a crop, the owner fails to pay even the hundred dollar payment which is due—and in the deficiency of the crop, arising from the inferiority and unproductiveness of the soil, it deranges his pecuniary affairs, from which he seldom or ever recovers. The farm which is highly cultivated, can be relied upon; nothing to do but put in the crops, harvest and market them; no expense in fetching the land up, or in making repairs; every dollar obtained goes towards the extinguishment of the debt;—often has the case been where two installments have been paid of one thousand dollars each, from the productions of one year, which will extinguish the debt of several thousand dollars in a few years, and his farm growing better.

In order to substantiate the above, I will state, that I am acquainted with a farmer in this town who purchased a choice wheat farm some two years since. The farm contains 96 acres of improved land, and from 8 to 15 acres of timber. The purchase money amounted to $13,100. There was 85 acres of wheat on the ground, which he harvested, the sale of which amounted to $2,593 73—reserving 105 bushels for seed, and some 65 bushels for bread. The wheat was sold for 10s. 4d. per bushel. The barley sale was $90 25, and the wool and fat sheep amounted to $77 37; which constituted all the sales for that year. The whole aggregate amounts to $2,761 35. He kept an accurate account of all expenses for the year, and they amounted to $523 87; this includes farm labor of all kinds, mechanics' bills, and family expenses, which leaves a net revenue from the farm of $2,237 48. And in addition to this he had 70 acres of wheat growing for the next season, and the cost of putting this in is included in the above expenses. The next season he harvested 15 acres less of wheat, but obtained a better yield. From the 70 acres he sold 2,006 bushels, sowed 117½ bushels, and kept for bread 67 bushels. The wheat was sold for 9s. 1d. per bushel; 450½ bushels barley at 4s.; 100 bushels corn at 4s.; and 332 lbs. wool at 31 cents per pound. The sales for the second year were $2,634 92, and the expenses amounted to $492 83—leaving a balance in favor of the farm of $2,142 09. In the item of expenses there is included the putting in of 80 acres of wheat which he has harvested the present season.

With this array of facts, which would be the most advisable for a cultivator of the soil, with only a few thousand dollars, to lay it out for a farm in this healthy and productive country, where the markets are convenient and good, or to go to Virginia and purchase those cheap lands which are so impoverished, the productions of which at present but a little more than pay for cultivation? Some four or five crops in this country will pay $55 or $65 per acre, and pay the expense of growing the same. I think I am justified in making the assertion that it will require some four or five years to put those worn out lands in Virginia under a tolerable state of cultivation, and at the same time it is attended with much labor and expense. *Caledonia, Liv. Co., N. Y., Aug.*, 1849.

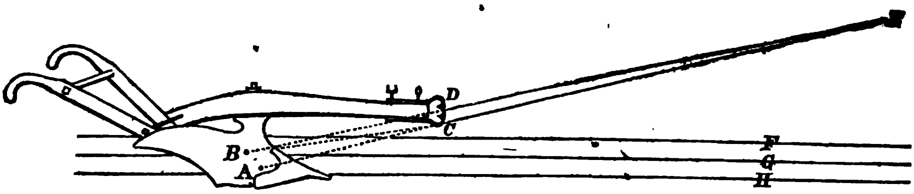
WIRE FENCES.—GROWING THORNS FOR HEDGES

Messrs. Editors:—I see in the August number of the Genesee Farmer a communication of F. R. Miller of Pa., recommending the setting of trees for the support of Wire Fences. I have had a similar idea, and would suggest, for that purpose, the use of the Chesnut, as the wire will not corrode within that tree; and it may be continued through the whole line of the fence, by merely boring a hole of the requisite size through the trees successively. Whether Chesnut posts will answer the same purpose I am not certain, as I do not know whether the dry wood has the same preservative effects on iron with the living tree.

I take the liberty of inquiring, if it be in your power to inform me, what is the contractive effect on wire of the cold of winter over the temperature of a hot sun in summer: that is, how much a piece of wire which is a rod long in the summer heat, will contract in the cold of winter? and whether the inconvenience attending the changes of temperature, may not be obviated by spiral steel-wire springs, at stated distances, and at what cost?

H. R., of Seneca County, in recommending our native thorn for hedges, speaks of its ease of propagation "by seed." I have planted a great many of the berries or apples, but have never yet had one to spring from them. What is H. R.'s system by which he causes them to vegetate. L.—*Tompkins Co., N. Y., Aug.*, 1849.

The Plow.—Its History and Improvements. No. 3.



PRINCIPLES INVOLVED IN THE CONSTRUCTION AND OPERATION OF THE PLOW.

BY HORACE L. EMERY, OF ALBANY, N. Y.

FRIEND MOORE:—As I some months since commenced a series of notices concerning the PLOW, and promised to continue them, I now forward you a few cuts, with my own explanations of the power and draft, as connected with the Plow.

Having before written concerning its form and construction, I will now continue, with the remark, that probably few subjects are less correctly understood, not only by plow makers but by the plowmen themselves, (who of all others are most interested,) for as much depends upon the proper attachment of the power as upon the proper construction of the Plow, to cause it to do its work properly, and with the least expenditure of power of man and team.

From the complex construction of plows, as also the manner in which circumstances oblige us to apply the motive power, many different theories and misconceptions have arisen as to the proper mode of application of the draft to effect the desired operation of the plow.

To better illustrate the subject, a reference to the above drawing, with the explanations will be of service to all concerned.

1. All plows, when in operation, meet with resistance, caused by friction in the soil, and which is increased by the weight of the furrow-slice, as well as the tenacity of the soil or sward.

2. All plows, when in operation, have a right line of draft, (often miscalled center draft,) which may be defined by drawing a direct line from the fixed point of the motive power, (as for instance, the ring of the hames in the harness of the horse, or the ring of the yoke, with oxen,) to the center point, or place of the resistance of the work upon the mould-board of the plow,—or as may be seen in cut, from E to A or E to B.

Were it not for considerations of convenience, a chain firmly attached to the body of the plow at A or B, in the direction of this line of draft to E, would answer all purposes better perhaps than the wood beam, as now constructed.

Now, as the chain, if placed as above described, would obstruct the proper working of the plow, we are compelled to apply the power indirectly to produce the desired effect—the power of draft being the means by which the end is accomplished; it is by the use of the present framework of the beam (connected firmly and unyieldingly to the body of the plow,) that the desired end and object is attained. Therefore, when the beam is constructed properly, the effect produced by the application of the force at the point of the beam at C or D, is precisely the same as if attached to the chain, firmly fixed to the mould-board at A or B, as before described. This much for the line of draft.

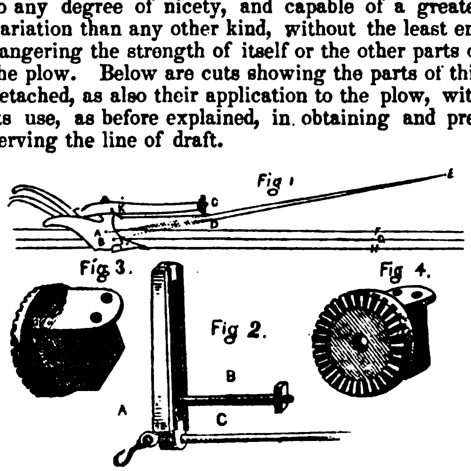
The point or center of resistance upon the plow, is on the forward part of the mould-board, and a little lower than the surface of the ground being plowed, and about midway of the width of the furrow slice. This center of resistance is varied by circumstances, as for instance, let the plow in above figure be set into the furrow to the depth as represented by the two lines G and H, the center would be near the point on the mould-board marked A. In this case, the draft is represented by the line A to E, and to secure the proper working of the plow, and preserve this line it becomes important that the force be applied to the beam at the point C. But should the plow be set deeper in the ground, and as shown by the lines F H, the center of resistance would be higher up the mould-board, or at B, thereby changing the line of draft from A E to B E, and requiring the power to be applied to the beam at the point D, instead of C, as before.

From the foregoing, it will be readily seen, that the line of draft is changed as often as the center of resistance is changed by deep or shoal, as also wide or narrow furrows; or as often as the point of draft of the team is changed by tall or short horses or oxen, long or short traces, or long or short yokes. In order, therefore, to preserve the line of draft, it is necessary to have an adjustable clevis at the end of the beam, that the plowman may regulate the same to accommodate the circumstances of the case.

Should the plow incline to raise at the point, and require an exertion of the plowman to keep it down, it follows that the power is applied too low in the clevis to accommodate the line of draft; as for instance, the center of resistance being at B in the cut, and the attachment to the clevis being at C, the power being at E, the plow would tend to rise at the point C until it intersects the line B E. This would probably throw the plow out of the ground, or lessen the depth of its work. By the simple arrangement of the clevis, and attaching the power to the beam at the point D, the steady, easy and uniform motion of the plow is obtained and preserved, and the same rule for regulating or applying the draft holds equally true in all cases, as width, depth, &c.

If a plow is properly stocked, the clevis giving the variations to the extent of the square of the end of the beam, is sufficient for all practical purposes; but as it often happens that from want of skill in the construction of the plow, or the condition of the land, or when two or three horses abreast are used, or when it is desired to have the team work upon the solid ground in plowing bogs, &c., it is all important that a clevis be so constructed that it may be susceptible of sufficiently wide range of variations.

Many different kinds of attachments have been invented—some simple and good, while others are heavy, cumbrous, and inconvenient. The best now before the public is that called the *Dial Clevis*, with the draft rod, known as J. M. C. ARMSBY's Patent of December, 1845. It is strong, instantly adjusted to any degree of nicety, and capable of a greater variation than any other kind, without the least endangering the strength of itself or the other parts of the plow. Below are cuts showing the parts of this detached, as also their application to the plow, with its use, as before explained, in obtaining and preserving the line of draft.



C and K, fig. 1, shows plow with dial clevis with rod attached, and position of plow in operation, line of draft, &c., &c.

A, fig. 2. The guide or movable plate which is confined across the end of the beam.

B, fig. 2. The joint bolt and nut which confines the guide to the end of the beam.

C, fig. 2. A section of the draft-rod passing through the guide, and to which the power is applied.

Figs. 3 and 4. The cast iron cap fitting the end of the beam, and through which the joint bolt passes, and to which the guard is confined by means of the bolt, and cogs or teeth on it, fitting into ribs upon the guide.

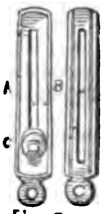


Fig 5.

A, fig. 5. Shows the front view of guide, and head of bolt confining it.

B, fig. 5. The back view of guide with splints or ribs which fit the cogs on the cap, as seen in fig. 4.

This clevis is light as any ordinary clevis, and costs but fifty cents more than a common wrought iron one.

The rod is made of the best wrought iron and extends back underneath the beam any distance, at the pleasure of the maker. As shown in fig. 1, it is attached at K, or near the coulter bolt.

At an early day I intend to take up the subject of the public trials of plows, as generally conducted, and show the advantages to be derived therefrom, as also to point out some of the errors and their cause, by which the public are often misled—also, their remedies. H. L. E.—*Albany, N. Y., Aug.*, 1849.

* * *

The Harvest in Canada is favorably spoken of by the Toronto Globe, which says:—The fall wheat harvest in this neighborhood is now almost gathered, and we are happy to say that the yield is most abundant—greater than for many years past. We hear of thirty, forty, and even fifty bushels to the acre on many farms.

* * *

Onondaga Salt.—The activity in the salt manufacture has not been surpassed in any former year. The quantity manufactured since 1st January, is given by a Syracuse paper at 1,171,136.16 bushels, or an increase of 401,488.38 over the previous year.

IMPORTANT DISCOVERY ABOUT PEAT.

A discovery has been made in Ireland which is likely to be more important than the discovery of gold in California to America. It is a discovery which, if it be truly represented, must open in the United Kingdom mines of wealth worth a thousand Californias—mines of wealth having these extraordinary properties, that all the cost of exploring them will be clear gain to the people, while the place from which the treasure is to be withdrawn will be enriched by its removal.

Lord Ashley's statement of the amount of valuable materials into which 100 tons of peat was convertible—100 tons of peat which cost £8, and the labor of converting it about £8 more, contained:

	Lbs.	*Value.*
Carbon of ammonia,	2,602	£32 10 2
Soda,	2,118	8 16 6
Vinegar,	600	7 10 0
Naptha, gallons,	30	7 10 0
Candles,	600	17 10 0
Camphene Oil,	600	5 0 0
Common Oil,	800	3 6 8
Gas,		8 0 0
Ashes,		1 13 4
		£91 16 8

Mr. Owen, he said, had tried this experiment not merely on one hundred tons, but on thousands of tons of peat during the whole of the last twelve months. He had expended his capital on it and had received his remuneration, and was ready to stake his character and fortune on the issue. He (Lord Ashley) wished to add, that after the peat was cleared away the soil beneath was found fruitful beyond all description, because it was absolutely saturated with ammonia; and consequently, not only would the country be enriched by the conversion of the peat into valuable materials, but the soil itself would afterwards be found in a far more cultivatable condition.

The introduction of steam navigation, railroads, agricultural chemistry, the application of the electric fluid (itself unknown 200 years ago) to uses unimagined 20 years ago, and in many other new applications of physical power, afford pregnant proof of the inexhaustible resources of material nature.

If the above be true, says the New York Express, the discovery will be of immense advantage to the United States. There is already a handsome business done in Massachusetts and elsewhere in New England—and for aught we know in other parts of the country—in the cutting and drying of peat for purposes of fuel. New value will at once be given to this enterprise, should the above prove true.—*Ex.*

* * *

Mediterranean Wheat.—A correspondent of the Winchester (Va.) Republican states that in that part of Virginia the Mediterranean wheat escaped rust better than any other variety. The wheat crop of Washington county, Pa., it is said, was not more than half an average yield this year, in consequence of rust. A good deal of the Mediterranean was sown the past season in that county, and, notwithstanding the damage done to the other varieties, the Washington Reporter says that "all of this," so far as it can learn, "has turned out well."

* * *

Cheap Mode of Fattening Hogs—Allow them to run at large, and teach them to break into your neighbor's corn field every night.

CIRCULAR FROM THE PATENT OFFICE.

We are pleased to receive the following circular, issued by the Commisioner of Patents. The enquiries are directed to the most important subjects, and are so framed as to elicit the principal facts relating to each. If properly responded to, as we trust they will be, they will bring out a mass of valuable information in regard to the agricultural resources of the different sections ef our country :—

The Commissioner of Patents, *in execution of acts of Congress, desires to procure information from Planters, Farmers and others on the following, and any other points that may occur to you, connected with agriculture:*

Wheat.—Your experience as to varieties, difference in weight, and of time in ripening; enemies and diseases, soil and manures best adapted to.

Oats.—What varieties have you tried and with what results, particularly as to the time of ripening ; with their estimated value as compared with corn as food ; is the cultivation of the oat becoming more or less popular, and for what reason ?

Rye.—Have you knowledge of any new and valuable variety ; to what use is it applied ; have crops diminished of late years, without any apparently corresponding diminution in the fertility of the soil, and to what influence is it supposed to be attributed ?

Barley.—Have any new varieties been tried, and with what results ; to what uses is this grain applied in your State ; if not cultivated, is it forbidden by your soil and climate ?

Maize, (Indian Corn.)—What varieties most esteemed and for what reasons ; what the difference in time of ripening ; is it liable to change of character and climate, and other influences, and your observations on that point ; give the estimated value of the husk as compared with the blade, and of both as compared with good hay, weight for weight ; what is the value of green corn for soiling cattle, and especially for producing milk ; your experience as to feeding grain, whole or ground, cooked or raw ?

Rice.—Variety cultivated ; describe any new and valuable process for its cultivation or preparation for market.

(Note.)—As to all these grains, please state the cost of production and usual weight, and the probable average per acre and actual aggregate product, if known, of each in your State ; whether the average product per acre has increased or diminished ; whether the weight per bushel of the various grains is fixed by law in your State ; and what weight is prescribed for each.

Hay.—State the comparative value as food for stock, of clover, timothy and mixed hay ; the grass seeds preferred in laying down meadows ; the average yield per acre ; describe any new process in curing ; have meadows been irrigated in your State and with what effect ?

Peas.—For what purpose cultivated in your State ; for food or for improving the soil : estimated value as food for stock, compared with Indian corn ; the most esteemed variety for field culture ; average product per acre ; value of haulm or vines compared with other fodder ; average price per bushel in the last year.

Root Crops.—Irish and sweet potatoes, turneps, carrots, beets, mangel-wurtzel, artichoke, and other varieties ; comparative value ; cost of production : weight per bushel ; and the average per acre, and aggregate produce for your State.

Cotton.—Average yield per acre and per hand in your State ; aggregate yield of the whole State for 1849 ; describe new varieties and processes of cultivation ; manures best adapted to ; cost per pound or bale, of production ; freight, charges, commissions &c. paid by the planter.

Sugar.—Whether of cane or maple ; the product per acre ; describe any new process of cultivation or manufacture ; variety of cane cultivated ; its enemies and diseases ; cost of making sugar ; freight, charges, &c., paid by the planter.

Hemp.—On this head give any information that you may deem valuable and new as to varieties, processes of cultivation and preparation for market ; soil and manures best adapted to ; cost of production.

Butter.—Quantity made in your State ; average annual produce per cow ; are cellars or spring houses preferred ?

Cheese.—Same questions.

Horses and Mules.—Number raised in your State ; average value of each ; comparative value for farming purposes ; where is your market for them ?

Number of Horned Cattle in your State ; average value of at three years old ; where driven to market : cost of keep per head per year ; which of the improved races is preferred ?

Sheep Husbandry.—What the prevailing races ; what the condition of this branch of industry : amount of wool clipped in the year, and average weight of fleece of different races ; cost of keeping sheep through the year per head ; where your markets ; what your system of selling ; have you wool depots, and are they found advantageous for wool grower and manufacturer ; what number killed by dogs in your State ?

Hogs.—Average weight at a given age ; average weight consumed per head ; proportion of live to nett weight, and cost of production per pound.

Rain.—Time and degree of highest and lowest range of thermometer, and the mean temperature of the year ; also, inches of rain water in each month, and aggregate for the year.

Labor.—Cost of, with and without boarding, and cost of boarding.

Tar and Turpentine.—Quantity and value of, produced per hand.

Plaster and other Fertilizers.

Lime.—If used as an improver in your State, how much is thought to be best per acre, and how often applied ?

Orchards : *fruits, transplanting of trees, &c.*—Information on these and kindred matters will be of universal interest.

On the cultivation of the Vine, on Grapes, and American Wines, communications are particularly solicited.

P. S. Please answer this as soon as convenient after you procure the information, and before the 1st of December ; and, in the mean time please name any one to whom this circular may be sent in the hope of fuller informrtion. If not room on the circular, please reply on a separate paper, referring distinctly to the queries. Thomas Ewbank.

Uwited States Patent Office, } Commissioner.
Washington, July, 1849. }

Attend your County Agricultural Fair, and take such animals and articles as will add interest and value to the exhibition.

DEATH OF MR. BATES, AND SALE OF HIS HERD.

Eds. Gen. Farmer:—Allow me herewith to furnish you for publication, in the Genesee Farmer, an extract of a letter I received from England, by the arrival of a recent steamer, addressed to me by Robert Bell, Esq., dated Kirkleavington, August 22, 1849. He remarks:

"It is my painful duty, to announce to you, that our late much esteemed friend, Thomas Bates, Esq., is no more. His spirit returned to God who gave it, on the 26th July last, after an illness of six weeks. It may be said of him, in his death, his country has met a great loss; more particularly its agricultural community, as he was a practical agriculturist of a discriminating mind and great experience. He more particularly excelled in the science of breeding, especially in the breeding of short-horn cattle. He early in life evinced a lively interest in this department, and by nature he seemed highly qualified not only to become conspicuous, but successful, in this branch of his profession; and the result of his sixty or seventy years of daily practical application, has, beyond the question of a doubt, placed him in the front ranks, of the most successful breeders England has ever produced.

"The wide spread reputation and standing of his Duchess herd of short horns is well known and appreciated. The public will now have an opportunity to judge of their merits, as they will be offered for sale, at auction, probably next spring or summer. The time of sale is not yet fixed, but as soon as it is, I will take the earliest opportunity of informing you. I intend offering part of my herd, and that of my brother at the same time—probably the number offered will amount to 150 head."

Having myself, sold in your vicinity, as well as in other parts of the United States and in Canada, many cattle possessing the blood of Mr. Bates' herd, I presume the intelligence contained in Mr. Bell's letter will be highly appreciated by these gentlemen: hence allow me to ask its insertion in the Genesee Farmer. Geo. Vail.—*Troy, N. Y., Sept.*, 1849.

Too Hot for the Apples.—That very hot week in June was a little too strong for many of the apples in our vicinity. One hundred and one degrees of Fahrenheit in the shade, is a little too much free caloric for fruit of that description.

It fairly *cooked* some of the *outsiders*, and hence in many orchards we have noticed a great thinning out of the fruit, which had set abundantly, and which promised to give an abundant crop. The crop must, of course, be not a very great one. Friend Cole says we never have a great crop in "*odd years.*" It is *odd* to have such hot weather in June as we have had this year, and it is *odd* to have baked apples so soon after the blossoming. This is an *odd* year to all intents and purposes, and the *odds* are against the apples.—*Maine Farmer.*

Munificent Beqtest.—The late Mr. Theodore Lyman has bequeathed a legacy of $50,000 to the Reform School, at Westborough, Mass., of which he was the founder. He has also given $10,000 to the Boston Farm School, of which he has been an active officer for several years, and $10,000 to the Massachusetts Horticultural Society, in whose labors he always took a deep interest.

AMERICAN BUTTER IN ENGLAND.

Speaking of American Butter, the London Commercial Journal has the following remarks:

"At a public sale of American butter at Liverpool, it fetched for best sorts, (one hundred and twelve pounds,) eighty-four shillings; second, seventy-two to seventy-four shillings, duty paid; while inferior only sold at forty-three shillings in bond, of which the parcel chiefly consisted. The quantity arrived at the London market shows the same results, the principal part being sold for grease purposes. The American makers of butter are very far behind the Irish, English or Dutch; from the first operation to the last, all seems to be done without system or care; the same materials would, if managed by experienced hands, fetch in this market twenty-five shillings or thirty shillings more money; there is no attention paid to the making, salting, putting down or packing."

Disagreeable to our national pride and self esteem as the above statements are, we copy them nevertheless, for the purpose of correcting the defects in American butter. It gives us pain to know that so many citizens of this free and enlightened country "are behind the Irish, English and Dutch in making butter"—that where provisions are so scarce and dear as in England, none will eat common "American butter," but it goes, alas, for *soap grease!* For the credit of our rural population, we invite all our readers to aid us in putting an extinguisher on the manufacture and exportation of mean and nearly worthless butter. The production of so much "grease" of this kind, is alike unprofitable to the farmer and disreputable to the United States. The evil is in truth as unnecessary as it is disgraceful. It costs but a trifle more to make a firkin of clean, sweet, pure butter than one of rancid, curdy, filthy grease, fit only for the soap boiler. The former will bring a fair, remunerating price, (and it costs no more to transport it to Liverpool,) while the latter will hardly pay freight, insurance and commissions.

All the first rate butter and cheese which our enterprising dairymen can send abroad will be bought and consumed with avidity. They are great luxuries as well as valuable and wholesome articles of food.

Rule for Constructing Chimneys.—A very erroneous practice prevails, among chimney builders, of contracting the passage for the smoke at the lower part near the fire-place. "This," says Treadgold, "is like contracting the aperture of a pipe which supplies a jet." Chimneys, to draw well, should be contracted at the top. The rule for ascertaining the required degree of contraction is as follows:—

Let 17 times the length of the grate, in inches, be divided by the square root of the height of the chimney, in feet, and the quotient will be the area in inches, of the section of the aperture at the top of the chimney. For example, a grate 15 inches in length, with a chimney 36 feet high, to which the contracting top is required—17 multiplied by 15 gives 255, which number divided by 6, the square root of 36, gives 42½ inches for the area of the top.

Shoeing Horses.—At a meeting of the Royal Agricultural Society of England, some time since, Professor Sewel remarked, that he frequently found old horses shod with a layer of leather, forming an artificial sole between the hoof and the shoe, recovering from severe affections, causing injury to the hoof—such for instance, as contraction, brittleness, and cracks, or even diseases of the foot itself, as thrushes, corns, cankers, etc., and permanently regain their original elasticity and firmness.

Domestic Economy.

LARD LAMPS.—IMPROVEMENT IN MAKING.

BY A FARMER'S WIFE.

Messrs. Editors:—Can you inform me where the lard lamps are manufactured? (I mean britannia lamps (*a*)—those made of tin are liable to leak if set too near the fire, or from turning in hot grease.) My husband purchased one of a pedlar some five years ago, merely for the purpose of testing its value. We were very much pleased with it, but have never been able to purchase another.

I have experimented a little with my lamp, and find it consumes less grease than a common mould candle, while it gives more light than two. It burns with a clear steady light, and if the grease is clean, and the wick properly trimmed, it will require no more attention during the evening. Tallow, or any kind of house grease properly clarified, will burn equally as well as lard. I wish also to suggest a little improvement in their construction. Instead of removing the top when the lamp is to be filled, which with the utmost care is apt to disarrange the wick, there should be a tube on one side, rising as high as the top, to be secured with a screw cover.

I have heard some object to the lard lamp on account of the trouble of fitting and putting in wicks; but I have never heard these objections from persons who were ever obliged to make candles, clean candle sticks, or find their own lights. With clean grease a wick will last a month. I once burned one every evening for seven weeks, and I consider it less trouble to fill a lamp, (with a lamp filler, and no person who owns a lamp should be without one,) than to take care of a pair of candlesticks, and snuff candles. Candles are necessary when a light is required only for a short time, as in the morning; but if a light is wanted during the night, by picking down the wick of the lamp it will consume but a small quantity of grease, and require no snuffing. They should be manufactured from the best of britannia, as that article requires very little polishing to keep it looking as well as new. *Onondaga Hill, N. Y., Aug.*, 1849.

(*a*) Mr. J. Kedzie, 11 State-st., Rochester, has a few Britannia Lard Lamps for sale. They are (or were formerly) manufactured at Auburn, N. Y.

* * *

How to Render Cloth, Silk, &c., Water-Proof.—Take one pound, each, of common alum (sulphate of alumica,) and sugar of lead (acetate of lead,) and dissolve them in six quarts of boiling water, well mixed by stirring. When cold, the top portion of the mixture should be poured off for use, as the sediment consists of sulphates of lead, potash, &c. Any article of dress, no matter how slight the fabric, if well saturated with this liquid, and allowed to dry slowly, will bear the action of boiling water, and not permit it to pass through it.

* * *

To Preserve Clothes.—As clothes, when laid up for a time, acquire an unpleasant odor, which requires considerable exposure to the atmospheric air to remove, it can be prevented by laying lumps of recently made charcoal between the folds of garments; and even when the odor is already fixed, the charcoal will absorb it.

* * *

To Clean Knives.—Charcoal, ground to powder, is one of the best things ever used for this purpose.

Veterinary Department.

Warts, Wens and Tumors on Animals.—Mix tar and salt, and apply them; continue the practice, renewing the application frequently, until a cure is effected.

As a remedy for wens, some cast the animal and cut out the wen, then fill the cavity with powdered rosin and salt, well mixed; and carefully bring the skin back to its place and sew it up. Or wash the wen often, and for a long time, with warm vinegar, saturated with common salt. We have known large wens cured by warm salt water alone. Or put a hair seton through those that are not sitfasts, or a wolf on the jaw, when they appear to be ripe, and wash them daily in soft soap.

For warts, cut them open, and apply blue vitriol, *(sulphate of copper,)* in powder. A physician was induced to try this, (and it was attended with excellent success,) from learning that a boy had many warts cured on his hands from sorting brass nails, from the influence of the copper in the brass.—Neither the cutting or the application is painful. Or apply to warts raw-grated carrots, mixed with salt. Warts are sometimes cured by the application of spirits of turpentine, or lunar caustic.—*Cole's Veterinarian.*

* * *

To Cure a Biting Horse.—Biting is a bad and dangerous habit. It is said that the bite of a horse that is not mad will sometimes produce madness. The following is regarded as an effectual remedy; but it is to cure a savage habit. A horse would better burn himself than bite people repeatedly. Roast or bake a piece of meat, and present it hot as he attempts to bite. Be cautious lest he bite a piece of *live* flesh instead of *hot* meat.—*Ib.*

* * *

Gestation.—The time that animals go with young is called their period of gestation; and this, as is well known, differs materially among the several kinds domesticated by man. Thus, the period of gestation in the mare is about 330 days, that of the cow 280 days; that of the sheep 154 days; and that of the hog 114 days. A most extensive series of experiments on the period of gestation has been made at the governmental farms of France, and on the farm of Lord Spencer in England. From these it appears that in the case of the mare and the cow, very great deviations from the average time occurred, amounting in the extreme to nearly two months. In the case of the sheep and swine, the deviation was less, but still considerable. The times stated above are the average of the whole; and will probably be found as nearly correct a guide for the breeder of these animals as the circumstances will admit.—*Gaylord.*

* * *

The Time for Taking Sheep from the Pastures.—This must depend on the state of the weather and food. Severe frosts destroy much of the nutriment in the grasses, and they soon after cease to afford adequate nourishment. Long exposure to cold storms, with such food to sustain them, will rapidly reduce their condition. The only safe rule is to transfer them to their winter quarters the first day they cease to thrive abroad.—*Allen's Dom. Animals.*

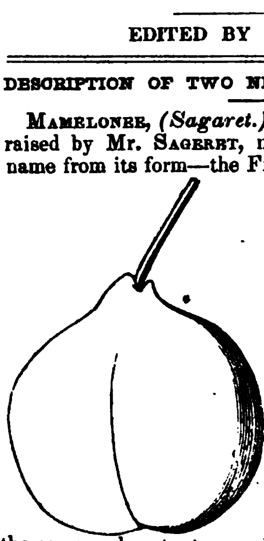
* * *

For Costiveness or loss of appetite, sulpher is a good remedy, given in a light mess, for swine.

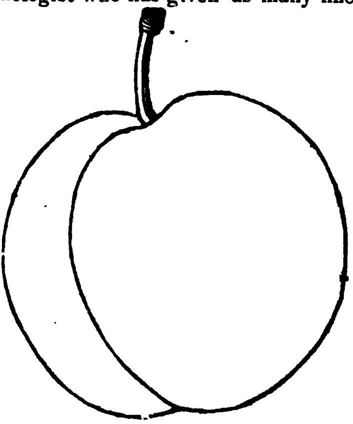
HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

DESCRIPTION OF TWO NEW AND FINE PLUMS



Mamelonee, *(Sagaret.)* This is a curious plum, raised by Mr. **Sageret**, near Paris. It takes its name from its form—the French word *mamelon* signifying nipple or peak. We imported it from France with the *Reine Claude de Bavay*, and some other new varieties, four years ago. This year a three year old graft bore a fine crop that ripened with the Green Gage, about the 20th of last August. With the exception of the remarkable nipple at the base of the stalk, it would pass for a good sized Green Gage. It is of precisely the same color, texture and quality, and the tree is quite similar, though rather more vigorous, and the shoots are more gray. Its unique, and altogether distinct form, with its excellent qualities, make it a very desirable variety. It is very productive.



Reine Claude de Bavay. This rare and excellent variety was originated not many years ago, by the late Major **Esperin**, of Malines, in Belgium, an enthusiastic pomologist who has given us many fine winter pears—not yet generally known in this country.—He considered this plum one of the finest of all his productions, and from what we have seen of it we think it well worthy of a place with our finest sorts.—This is the first year we have had it in fruit, and we are not sure but ours is the first fruit grown in this country.

The old Green Gage and Coe's Golden Drop have both been sent to England for this variety, according to the statements of Mr. Rivers; but we have been fortunate in obtaining the genuine article from the beginning. Our fruit were produced on a graft set 3 years ago on one of the top branches of another tree. It bore about 30 well-grown specimens; besides many that were stung with the curculio and dropped. On vigorous trees we suppose it will attain a larger size. Medium specimens measured 5½ inches in circumference; roundish, very slightly oval, resembles the Washington, with a well marked broad suture extending round one side. Stalk about half an inch long, in a pretty deep cavity. Skin pale greenish yellow, occasionally like the Green Gage, tinted with red when well exposed to the sun; thinly coated with whitish bloom. Flesh yellowish green, firm, juicy, rich and sweet; adheres to the stone. Ripens from the 15th to the last of September—later than most of the fine plums, and hence very valuable. Shoots moderately stout and smooth; leaves oval, glossy, and of medium size, not unlike those of the Yellow Gage. Tree exceedingly productive.

Mr. **Rivers** says that he visited the parent tree in October, 1847, and on the 12th of that month ate of the fruit produced on a dwarf standard, preserved under muslin, perfectly fresh and unshrivelled. He said the parent tree then was about 15 years old, and was covered with fine fruit; they were indeed more numerous than the leaves.

STATE FAIR AND POMOLOGICAL CONVENTION.

Engagements at home prevented us from reaching Syracuse until the last day of the Fair, and then we found ourselves in fact "a day after the Fair"—for Floral Hall was being swept out for the great ball; and we were deprived of a sight, even, of the fruits and flowers that had been collected there from various parts of our great State. The season, however, has been exceedingly unfavorable in all parts of the country, and this rendered the show less varied and extensive than it otherwise would have been. Still we are informed that it was very good, and great credit is due to the Committee who constructed and arranged the beautiful tent. We must refer our readers to the reports of the Committee for a detail of the exhibition.

The Pomological Convention assembled in the City Hall. There was a fair display of fruits, considering the season, and a numerous attendance of nurserymen and fruit-growers from various sections. Dr. J. A. **Kennicot**, of Illinois, was chosen President, and B. **Hodge**, of Buffalo, and F. R. **Elliott**, of Cleveland, Ohio, Secretaries—**Chas. Downing**, of Newburg, S. B. **Parsons**, of Long Island, and P. **Barry**, of Rochester, a Committee to bring fruits before the Convention for discussion. During all the forenoon, an interesting discussion was sustained on such fruits as had not been passed upon by the Convention of last year. Among those who participated in the discussion were C. M. Hovey, of Boston, Chas. Downing of Newburgh, S. B. Parsons of Long Island, B. Hodge of Buffalo, Jas. Dougull of Canada, J. W. P. Allen of Oswego, A. Saul of Newburgh, David Thomas of Aurora, &c. We shall refer to the discussion at a future time. Among gentlemen of distinction from other States, we noticed C. M. Hovey, Esq. of Boston, Prof Mapes of New Jersey, Hon. Adam Ferguson of Canada, M. B. Batcham, Esq. of Ohio, besides others from other States.

In the afternoon the discussion on fruit was continued, and Dr. Wendell of Albany, introduced a resolution, That a committee be appointed to attend the approaching sitting of the National Congress of Fruit Growers at New York, with a view to merging the two societies or bodies into one. We regret that we have not a copy of the resolution. It was well received and unanimously adopted. Reports from several State Committees were handed in, but not read.

After raising a fund to defray the expenses of the Convention and the publication of its proceedings, the meeting adjourned in the best spirit. The session was short, but pleasant, profitable anp harmonious, as all such assemblages ought to be.

THE AMERICAN FRUIT CULTURIST—Containing directions for the Propagation and Culture of Fruit Trees in the Nursery, Orchard and Garden; with descriptions of the principal American and Foreign varieties cultivated in the United States. By JOHN J. THOMAS. Illustrated with 300 accurate figures. Published by DERBY, MILLER & Co., Auburn, N. Y. 12 mo.—410 pages.

Mr. THOMAS' original little volume, "*The Fruit Culturist*," published some three years ago, was well received and widely circulated among the farmers and fruit growers, and has no doubt aided in diffusing much valuable information. The moment we first saw it we predicted its success and usefulness, because it was an unpretending, cheap little treatise, giving plain directions for the culture and management of fruit trees, with familiar descriptions of a few select varieties—just what was wanted by thousands of the country people, who had little or no experience in tree culture, and who have no relish for large volumes, high prices, or complicated scientific or technical details.

We hope this enlarged edition will be equally successful. It has cost Mr. THOMAS a vast amount of care and labor, for which we hope he will be fully compensated; but we confess that it disappoints us, and we apprehend will disappoint others. It is easy, we know, to find fault with, and suggest improvements, upon what may have cost long and weary days, weeks and months of thought and labor; and we reflect on this work of our friend with a great deal of reluctance, and only because we are compelled to utter our honest convictions. We hope the book will appear to the judgment of others more favorable than to our own. The great error which Mr. THOMAS has committed, and which we consider, has greatly injured his book, is the attempt to do too much—to compress a great deal of matter in a very small space. If he had confined himself to his original plan, and enlarged upon it, treating only of cultivation in all its branches, in full and explicit details, and of all the truly fine varieties *worthy of cultivation* in the garden or orchard—giving full and particular accounts of them *in all respects*—then he would have given us a book of great value, without a doubt—such a book as we have not at present. This was what we have expected of him. But instead of confining himself to this department, he has attempted to epitomise the whole subject of pomology, and make his book not only a manual for the mere gardener or orchardist, but a book of reference for the pomologist. This no man could do satisfactorily in so small a volume, nor should it be attempted.

To show what an amount of superfluous and almost useless matter there is in the volume, we will refer to the matter itself. Sixty pages are devoted to the descriptions of 250 varieties of apples—only 12 of these are distinguished by CAPITALS, as having been admitted as eminently worthy of cultivation in many different parts of the country; 50 others are distinguished by SMALL CAPITALS, as being next in value and quality; while all the other 200 sorts are superceded or unworthy of cultivation. Sixty-seven pages are devoted to the mere description of 250 varieties of pears, only 11 of which are designated by capitals, as above, and 22 in small capitals, while the other 200 are stated to be unworthy of cultivation, except in the collection of the pomologist.

Upwards of 100 varieties of plums are described, only 5 in large capitals, and 19 in small—leaving three-fourths of the whole number among the indifferent or rejected sorts. Now we do not think that the mass of cultivators will feel much interested in these 200 apples, 200 pears, 75 plums, &c., &c., all superceded, or unworthy of cultivation in their grounds. Would they not have thanked him to have left them out entirely, or given them simply in a list, and to have given more complete and full accounts of those that he did honor with large and small caps? For instance, the Swaar apple, which he says is "esteemed by many as the finest winter table apple." Instead of pointing out its particular excellencies and defects, and stating, as far as may be known, where, and under what circumstances it had, and had not succeeded, he very vaguely says, "not successful in all localities—fruit apt to be scabby on old over-loaded trees." A couple of pages might very profitably have been devoted to such a fruit as this. The cultivator ought to have been told how to remedy this production of "scabby fruit." The other leading fruits are passed over in the same unsatisfactory manner. The descriptions in Downing's Fruits and Fruit Trees are far more full and complete, and the particular excellencies and defects much more satisfactorily treated of—so that even the practical man must still refer to this book.

Mr. Thomas has, with a view to correctness, introduced certain descriptive terms that will not, for some time, be easily or well understood, except by those who have had some scientific training. Some of his descriptions will read harsh, we think; for instance, the *Beurre Knox Pear* is described as "large, oblong-obovate, obconic, acute." The *Gendesheim* pear is "large, often only medium, obtuse-pyriform, rather irregular, approaching obtuse-obconic." The *Bonchretien Fondante* is "roundish, slightly oblong, rarely short, obovate, obtuse." Such strings of scientific terms will appear as jargon to most people, and in our opinion will be more embarrassing than advantageous. Accuracy and precision is of great moment, to be sure, but we like to see every thing in its place, and we think these "obconics" have found their way into the wrong book.

Full sized outlines of a number of the best fruits are given, but these do not, as in Downing's, accompany the text, nor is reference even made to them in it, so that they are of comparative little value for ready use. Comparative forms of a number of apples and pears are given, in a scale one half the diameter; but unless to convey an idea of form, these are of no use, as no one who is not possessed of some mathematical information and instruments can work out the natural size. We consider the whole outline matter as a great loss, or at least a great misapplication of labor.

As a work of reference for the nurseryman or pomologist, we consider the book still more defective than for the cultivator, as there is a lamentable want of that detail of synonyms, history, local value, &c. Mr. Downing's descriptions are here much more valuable; not perhaps in the correct description of the fruits—Mr. Thomas' descriptions are exceedingly precise—but in the historical and other important detail. For instance, take the Golden Beurre of Bilboa Pear. Mr. Downing tell us that it was imported 18 years ago from Bilboa, Spain, by Mr. Hooper, of Marblehead, Mass., and that its European name is unknown. Mr. Thomas says, "a native of Bilboa, Spain." By the way it took us a long time to find this variety in Mr. Thomas' index, as he has it, "Bilboa, Golden Beurre of" —instead of "Golden Beurre," or "Beurre Golden," which we naturally looked for. *Berberries, Mulberries* and *Nuts*, that are hardly fruits, very commonly cultivated, are left out entirely, as well as *Figs, Pomegranates, Olives, Oranges*, &c., more or less cultivated in some parts of the United States.

Such are the principal objections we have to the plan of the work, and which compel us to think that Mr. Thomas, with a good intention to make a book that would be valuable and acceptable to all, has made one that will be of very partial utility to any.

As regards the *matter* of the book, we have not been able to give it a very close examination. The first part, of 100 pages, treating of "General principles and practices," is very good—better we think, than the same part of any other book of the kind we have. It contains the latest experiences of the author, and cultivators generally, gleaned from the best periodicals of the day, arranged in a compact and covenient manner. This part of the book will be worth much more to the cultivator than all the rest, and will not be too dear at the price of the book, for those who are without a guide in those matters. We have noticed a few errors that it would not be proper to pass by. On page 28, on "the production of new varieties," the word "inoculated" is frequently used, instead of fertilized or impregnated; "inoculated', is never used in speaking of the application of the pollen of one flower to the stigma of another, but is used generally as synonomous with budding. This is a trifling error but worthy of correction.

The classification of the different varieties strikes us as very good. It is the same as that adopted in some European treatises. APPLES are separated into three divisions—*Summer, Autumn* and *Winter;* each division into two classes, *sweet* and *acid;* each class into two sections, color *striped with red*, and color *not striped.* This last division of color we have not met that we remember in any other book, and although not objectionable, will be of litttle service. We think the distinctions would have read more correctly in this way, "color with more or less red" and "color without red"—because some apples are wholly red or washed with red and not "striped," and those "not striped" might be wholly of any color, like Black Detroit, or Red Astracan. PEARS are arranged in three divisions, *Summer, Autumn and Winter.* Each division into three classes, "Distinct Pyriform," "Obscure Pyriform," and "Roundish or Oblate;" each class, into three sections, large, medium, and small. In a scientific work these would be very well; but for practical uses, the divisions, as season of ripening and uses, table or cooking, would be more simple and valuable. The cooking varieties should certainly be classed separately, as they have now become quite numerous and distinct, and the distinction is observed by all cultivators.

The article on pruning is quite meagre and faulty, particularly that "to promote fruitfulness," and "pyramidal trees." At the present moment these two branches of pruning are among the most interesting subjects connected with tree culture, and Mr. Thomas has said but very little about them, and that little is neither explicit nor correct. We could extract an article from a late nnmber of Hovey's Magazine worth ten times as much. Indeed Mr. Thomas is evidently in the dark on this subject. No man, however much he may have read or thought on the subject, or how intelligent he may otherwise be, can communicate intelligible or reliable information on pruning, until he has used his knife for a long time, and observed well and extensively the effect of every operation. The pruning of pyramidial trees, and pruning to promote fruitfulness, require care, skill and caution, and if directions are given they should be fully and explicitly stated. We shall have more to say on this subject at another time.

In speaking of the culture of dwarf pears, page 196, it is tated that the orange quince had proved the best for stock. Now this is a great error. A similar statement was made by Mr. Downing some two or three years ago, in the Horticulturist, and the confidence placed in that Journal induced the general belief that this was so; consequently a great many nurserymen commenced raising seedlings of the orange quince to work the pear, and in most cases that we know of it has proved a failure. A neighbor of ours, an excellent nurseryman, tried it, and had to pull up and throw away his young trees at two years old. He would not impose on his customers by selling them, and he is now supplying his nursery with the French stock. This is an error that will lead to serious consequences we apprehend, and we are astonished that Mr. Thomas' great caution should have led him to hazard such an opinion.

There are many little matters through the book we should like to notice. For instance the *Carnation Cherry* is described as "yellowish white, mottled and marbled with fine orange red; leaves resembling those of a heart cherry." When mature the Carnation is light red, marbled with deeper red, and the leaves are distinctly of the Duke or Morello classes, though large.

There is an indefiniteness about the terms used to denote the seasons of the ripening that will not be found convenient to everybody. Instead of saying "wheat harvest," "autumn," "mid autumn," "early," "late," "rather late," "season medium," &c. we would greatly prefer to have the months or parts of months designated. It would take some people a considerable length of time to figure up the exact date of "wheat harvest," "mid autumn," or "medium season."

In the latter end of the book we find a chapter on the pronunciation of foreign names, or rather a half way attempt at anglicising them. Beurre is here made to rhyme with hurry—thus, "burry." This is quite new indeed. We should be much pleased to have all foreign names anglicised, if it could be done properly; but until we can have an English name in reality, let us have the *true* French pronunciation, at least in books.

We trust that what we have said will deter no one from purchasing this work; for, although it is not what we expected, nor what, in our humble opinion, it ought to be, it is a book of great value, and we hope will find its way into the hands of every professional and amateur cultivator in the country. It costs but a dollar and there is many a dollar's worth of useful matter in it, not in other similar works. This much we feel it our duty to say.

* * *

TRANSPLANTING.—Autumn transplanting is to be preferred for all hardy trees and shrubs, except when soil may be wet as in the very northern extremities of the United States and Canada.

Trees planted carefully—properly, as soon as removal is practicable, will be nearly a year ahead of those not planted till the following spring.

THE BAILEY (OR EDGERLY) SWEET APPLE.

BY F. K. PHOENIX, OF WISCONSIN.

MR. EDITOR:—You published not longsince an outline and description of a fine sweet apple from Perry, Wyoming Co., N. Y., which you called the "Bailey Sweet"—stating on, "good authority," that it originated with C. P. BAILEY, Esq. of that place. Having been acquainted with that fruit for the past 18 years, and esteeming it very highly, I have propagated it extensively in my nursery, and not being able to identify it with any book variety, I have felt very desirous of ascertaining its origin. Last fall when at the east, I stopped some time at Perry, my native place, and while there took much pains to trace out the source of this fruit, but could only learn the following facts:

They first appeared in the orchard of T. EDGERLY, Esq. and his father in that place, from scions set 25 or 30 years since by some traveling grafters. Where they came from, or where they obtained that fruit, was alike unknown to my informant, Mr. E. Edgerly, a brother of T. Edgerly. Hence you will observe that it did not originate with Mr. BAILEY—who, however, afterwards came in possession of the original orchard, and being a zelaous amateur horticulturist, and withal very liberal, disseminated it widely —and to whom therefore, the public is much indebted, as also to the Messrs. Pattersons of the same town. I have called it the Edgerly Sweet as first appearing with that family, and as having been so called to a considerable extent in that vicinity—though known by both names. Having given you the facts you can judge for yourself which is the correct name.

I fully acquiesce in the character given it in your description. It is by odds the finest sweet apple I ever saw of any season. The trees are productive and in the nursery very hardy and thrifty, and generally upright, though slender, and on poor soils sometimes straggling. Wood remarkably dark. F. K. P.—*Delavan Nursery, Wis., Sept.*, 1849.

THIS apple has been described under the name of "Baily Sweet," and considerably disseminated since under that name. That name was adopted because in most general use. We do not think that any other could be adopted now, with propriety.—ED.

* * *

NOTES ON CHERRIES.—We consider cherries that ripen during the last of July and first of August very valuable. Some people think that because the cherry season is short, it is not important to select varieties with regard to their season of ripening; but they are greatly mistaken. If we are to have a dozen cherry trees, instead of selecting only two or three popular sorts, such as *Black Tartarian, Yellow Spanish, Black Eagle, Knight's Early Black, Elton,* &c.—all first rate to be sure, but ripening about the same time, or varying not more than a week—we should make some such selection as the following: *Bauman's May*, or *Early Purple Guigne*, both very early, (say 10th to 15th of June in this region,) and about equal in quality, *May Duke, Knignt's Early Black, Black Tartarian, Elton, Napoleon Bigarreau, Belle de Choisy, Sparhawk's Honey, Downer's Late Red, Elkhorn, Belle Magnifique.* Here we have a dozen trees that will supply fruit from the tenth of June (in some seasons earlier,) until the middle of August; and if we would add one or two late Morellos, we might extend the cherry season nearly three months.

PEAR TREE BLIGHT.

MR. BARRY:—Having witnessed the effects of Blight in pear trees, and the almost certain destruction of them in our immediate region, I have taken no small pains to enquire of growers of them in different localities near us what the cause was, and remedy, if any. Premising that the pear tree naturally is a lopg lived one, I have found that where they have been grown in land where the grass has been suffered to remain in heavy turf around them, in close, compact, heavy soil, little if any blight has been seen. This culture prevents a too rapid growth of the young and tender shoots, consequently the *hot* sun's rays does not check the circulation of the sap, to burn and blight them. I find many persons who say that trees of theirs, growing under these circumstances, rarely blight; while others, who dig round the roots and give them strict attention, only find disappointment in *blight*. I am satisfied that had I not spaded round a large tree this season, around which I found the earth had packed and grass well grown and matted, that I should not have lost it.

My advice is to plant the trees in good heavy soil and pack it round, even to stamping down, and then put leached ashes around them. Then we shall have slow growing, long lived and sure bearing pear trees. I should be glad to have some one or many give their experience in this matter, and tell the public through the Farmer, whether I am right or wrong in my conjectures. JAMES H. WATTS.—*Rochester, N. Y., August*, 1849.

REMARKS.—We shall be glad to hear the experience of fruit growers on this point. The same view has very generally been taken of *blight*. A connection has been supposed to exist between rapid growth and blight, but from very extensive observation we are inclined to doubt it. We have seen old and slow growing trees, on hard and dry soil, just as much affected as rapid growers on a damp soil. One thing however is true, that it is more difficult to save a tree growing rapidly when it is attacked, on account of the more rapid circulation of the juices, and consequently the disease. As far as our observation has extended, there has been very little blight this season. Indeed we have seen none whatever in any of the nurseries here—nor in private gardens, except in cases where trees had been previously attacked. It is evidently disappearing.

* * *

CULTURE OF THE PLUM.—"An old Digger," in the *Horticulturist*, says: "Plum trees like a moist soil. I have found that covering the ground four inches deep with old spent *tan-bark*, is a good way of preserving the moisture, and keeping the tree in health. I scatter fresh lime thickly over the surface of the tan every year, as soon as the green fruit begins to fall. This kills every curculio that attempts to enter the ground. The tan prevents the weeds from growing, keeps the roots cool, and insures me good crops of plums. I spread it as far as the roots extend, and it wants renewing, or adding to, once in three or four years."

* * *

FRUIT TREES may be transplanted successfully, in this and most other sections, any time from the 1st of October until the ground is frozen. The trees should be well secured, and a few inches of manure or litter spread around the roots.

Editor's Table.

Acknowledgements.—We are indebted to M. B. **Bateham**, Esq. editor of the Ohio Cultivator, for a copy of the "Third Annual Report of the Board of Agriculture of the State of Ohio." It is a work of over 200 pages, and contains much valuable statistical matter relative to Ohio Agriculture, together with several well written essays on practical and scientific subjects. We shall endeavor to give, in future numbers, some extracts from its pages.——To **Derby, Miller**, & Co. for a copy of "The American Fruit Culturist," by J. J. **Thomas**. See review of this work, page 242.——To the proprietors for a "Descriptive Catalogue of Garden Leeds cultivated at the Wethersfield (Conn.) Seed Garden, by **Comstock, Terre**, & Co."—containing much useful information on gardening, &c., &c.——To the proprietor for "Descriptive Catalogue of Fruit and Ornamental Trees, Shrubs and Plants, cultivated and for sale by **Daniel Miller**, Jr., at the Cumberland Nurseries, near Carlisle, Pa."——To the Secretary for the "Third Annual Report of the Mahoning Co. (Ohio) Agricultural Society"—containing the Address of **John M. Edwards**, Esq., and other interesting matter.——To several unknown friends for pamphlets and papers embracing reports and proceedings of various Agricultural Societies, &c. &c.

Obituary.—It is with much regret that we announce the recent decease of several prominent and ardent friends and promoters of agricultural improvment—men who have accomplished much for the benefit of mankind and their country. Among others, we notice the death of **Henry Colman**, Esq. author of "European Agriculture and Rural Economy," and formerly editor of this journal; **Elias Phinney**, Esq. of Lexington, Mass.; Dr. H. **Gates**, of St. Louis, Mo., senior editor of the Valley Farmer, and formerly editor of the Iowa Farmers' Advocate; Col. **Edmund Kirby**, of Brownsville, Jefferson Co., N. Y.; Hon. E. **Mack**, of Ithica, N. Y.; and **Theodore Lyman**, of Boston. We regret that lack of space prevents a more particular notice in our present number.

Agricultural Fairs.—So far as we have ascertained the Agricultural Fairs held in the month of September, have been unusually well attended. We have only received full reports from two or three counties. The Livingston County Show, held at Geneseo on the 4th and 5th, is described as being all that could be expected from the farmers and friends of improvement in that noble agricultural district. The exhibition of stock was highly creditable—the best, probably, ever witnessed at any County Fair in the State.

The Monroe Co. Fair is being held to-day, (Sept. 26.) Though only stock, implements, &c., are exhibited on the first day, the number of people in attendance is much greater than at any previous Fair of the Society. The cattle, horses, sheep and swine are better and more numerous than we anticipated. The display of implements and machines is good, as usual. Among the latter we notice that our enterprising friend **Emery** has his Railroad Horse Power and Thresher in operation and working to a charm.

Credit.—The wholesale manner in which the Farmer is copied from, and no credit given, by several agricultural and other leading and influential journals, induces us to again protest against the neglect or unjustness of those who thus appropriate the labor and property of others. We observe in the Working Farmer for August, an article on "Agricultural Education," by our able correspondent **Agricola**, credited to the *Washington Republic*. As it originally appeared in the Farmer, we ask the usual credit—though we are glad that an article so able and important is receiving such extensive circulation. We have some twenty different journals now on our table, which contain articles originally published in the Farmer, (some of which cost us and our correspondents much time and labor) without the least acknowledgement. To promote the cause we are very glad to have our articles copied; but when editors who boast of their talents and enterprise make use of our humble lucubrations, to enhance the value and popularity of their respective journals, we respectfully submit whether they are not unacquainted with, or heedless of, the commands of the Decalogue.

Nhe List of Premitms awarded at the State Fair in Syracuse, was received so late that we are unable to publish it all this month. We make room for a part of it, and will endeavor to give the remainder in our next.

Agricultural Shows.—Annual Fairs of State and County Agricultural Societies are to be held this month as follows:—

Chemung County,	Horse Hends,	Oct. 17 and 18.
Delaware "	Delhi,	Oct. 3.
Genesee "	Batavia,	Oct. 4 and 5.
Niagara "	Lockport,	Oct. 16 and 17.
Onandaga "	Syracuse,	Oct. 3, 4 and 5.
Seneca "	Ovid,	Oct. 4 and 5.
Suffolk "	Greenport,	Oct. 2.
Wyoming "	Warsaw,	Oct. 2 and 3.
Yates "	Penn Yan,	Oct. 5 and 6.
Maryland State,	Baltimore,	Oct. 10, 11, and 12.
Middlesex, Mass.	Concord,	Oct. 3.
Mahoning Co. Ohio,	Canfield,	Oct, 2 and 3.
Clinton " "	Wilmington,	Oct. 17, 18 and 19.
Ross " "	Chillicothe,	Oct. 5 and 6.
Licking " "	Newark,	Oct. 3 and 4.
Delaware " "	Delaware,	Oct. 2 and 3.

SEEDLINGS, for Sale at the Geneva Nursery.

PEAR, Plum, Cherry, Apple Quince, Mountain Ash, Horse Chesnut, Buckthorn, &c. SEEDLINGS and SEED of the above trees for sale at the Geneva Nursery.

Also, all kinds of Fruit and Ornamental Trees, Shrubbery, and Vines for sale.

Geneva, Ont. Co., N. Y. [10 3m*] W. G. VERPLANCK.

Nursery Fruit Trees for Sale.

THE undersigned has from fifteen to twenty thousand cultivated Fruit Trees, fit for transplanting into orchards and gardens, for sale on liberal terms. There are over one hundred of the choicest varieties of Apple, Pear, Peach, Cherry and Plum Trees, in his collection, that can be found in this country. All orders from a distance will receive prompt attention.

MOSES LONG, No. 29, Alexander street.
Rochester, N. Y., Oct. 1. [10-2m]

Seedlings for Sale.

THE Subscribers, proprietors of the Old Castle Nurseries Geneva, N. Y., have for sale

50,000	Quince Seedlings,		15 to 20	inches	high,	$10	per	thousand.
50,000	Cherry	do.	8 to 15	"	"	8	"	"
40,000	Pear	do.	8 to 20	"	"	10	"	"
20,000	Plum	do.	8 to 15	"	"	10	"	"
20,000	Apple	do.	2 y'rs old nice for grafting			$5	per	1.000.

They cultivate extensively, and have for sale the rare and approved varieties of Fruit and Ornamental Trees, Also, Buckthorn, Hawthorn, &c, for hedges.

All orders promptly attended to. Trees sent a distance well packed and delivered at the railroad depot.

T. C. MAXWELL.
Geneva, N. Y., Oct. 1, 1849. [10-2m]

To Nurserymen.

THE Subscriber offers for sale 20,000 Seedling Plum Stocks 2 years old, at $8 per thousand.

10,000 Seedling Plum Stocks, 1 year, at $5 per thousand.

10,000 Pear Stocks. Seedlings, 2 years old, transplanted and very fine, at $15 per thousand.

The above are in fine healthy condition. Orders per mail, (post paid) will receive prompt attention. Address

Rochester, N. Y. [10-1m] EDWARD DAGGE.

Notice—Seedlings For Sale.

60,000 Apple Seedlings, of three years growth, for sale by the Subscriber. Price $3 per thousand.

ELIAB YEOMANS.
Walworth, Wayne, Co. N. Y. [10-1t]

Removal to No. 21 Buffalo-st., Talman Block.

C. HENDRIX & SON,

Wholesale and Retail Dealers in Iron, Steel, Nails, Spikes, Shelf and Heavy Hardware. House trimmings of all kinds, as cheap as the cheapest.

Rochester, Oct. 1, 1849. [10-3t]

E. BALDWIN,

ENGRAVER FROM NEW YORK CITY,

Having taken room No. 15, 3d story, Arcade Rochester, N. Y., lately occupied by John Miller, is prepared to execute all orders for

ENGRAVING,

With neatness and despatch, and respectfully solicits a share of public patronage.

Sons of Temperance, Odd-Fellows', and other seals engraved to order.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist. containing more than triple the matter of the former editions, having been wholly re-written. so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It contains more than

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case. from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole forming a handsome duodecimo volume, of over 400 pages, at the low price of One Dollar.

The work belongs to the author and is not traded. A liberal discount is made to Booksellers.

DERBY, MILLER & CO.,
Oct. 1., 1849. [10-3m] Publishers, Auburn, N. Y.

☞ The above work just received and for sale at the office of the Genesee Farmer. It can be sent by mail. Price $1.

Macedon Nursery.

THOMAS WRIGHT, sucessor to William R. Smith, (whose ill health compels him to relinquish the business,) has purchased the entire stock of this well known establishment, for which he has hitherto acted as Agent. The design of the original proprietor, "to furnish the community with the best varieties of fruits," will be constantly kept in view.

The stock of trees is now large, and will be sold at the Nursery at the following reduced prices, viz:

6.000 Apples. $16 per hundred; $18 when delivered.
1.000 Pears. $35 per hundred.
3.000 Cherries, $25 per hundred.
3.000 Peaches. rare kinds, $10 to $12 per hundred.
Apple, Pear, Wild Plum, Quince, &c., by the thousand.

Apricots, Nectarines, Plums, Filberts, Quinces, Chestnuts Walnuts, Strawberries, Grapes, &c., &c., at very moderate rates. A great variety of Ornamental Trees and Roses and other Plants are offered at 50 per cent discount from the usual prices. Immediate attention will be given to all orders accompanied by cash or satisfactory reference.

Macedon, Wayne Co., 9th mo., 1149. [10-1t]

Valuable Farms in Eastern Virginia.

NO. 38. 230 Acres in Prince George, 8 miles south of Petersburg. in the Marl region—50 acres cleared. 75 acres of timber in original growth, with much excellent heart Pine. Price $5 per acre.

No. 39. 111 acres, 4 miles from town, near the railroad, all in wood, in marl region. Price $10 per acre

No. 40. 286 acres on James River, 3½ miles from Smithfield in Isle of Wight county, beautifully situated; good dwellings and out-buildings, within 200 yards of the landing, where the finest fish are caught all the year, excellent oyster flats, &c.; good apple and Peach orchards; a most desirable place for raising fruits and truck for the northern markets. Price $3.600.

No. 41. 240 acres 20 miles west of Richmond, with two large dwellings—the land is good and the situation very healthy. Will be sold very low.

No. 42. 426 acres half open, in Charles City, near an excellent wharf on James River, where steamboats stop daily, and very near a settlement of Jersymen. The buildings are good and the land excellent. Price $12 per acre.

No 43. 400 acres in Gloucester county with good house and out buildings. 200 acres cleared, marl in every field—200 acres in heavy timber, within two miles of a good landing. Price. $2.000.

No. 44. 533 acres on Pamunkey river, in King William county, 150 acres cleared—much of the balance heavily timbered with white oak and ash - will be sold at a great bargain.

No. 45. 410 acres 5½ miles south of Petersburg—150 acres open, the balance in timber; good meadow land, well watered with fine springs; good dwelling and out houses, ¼ of a mile from the railroad. Price $2,700.

No. 46. 500 acres on the public road from Petersburg to Surry, 15 miles from town; the larger portion open, and part of it now productive of tobacco. wheat, corn and cotton; plenty of good marl, buildinngs comfortable. Price $3 per acre. Also an adjoining property with better buildings.

No. 47. 220½ acres 15 miles south of Petersburg. on a public stage road, all in very heavy heart pine of superior quality, hickory and oak—the soil is excellent; plenty of cleared land can be had adjoining—it is 3 miles from the Railroad. Price $1,000.

No. 48. 521 acres, about 200 acres in cultivation, all marled and producing fair crops, good brick house and good out buildings: marl in the greatest abundance; much good timber and wood It is bounded on one side by a navigable creek; is only 2 miles from a good wharf on James River. where steamboats stop every day, and 2 miles from Surry Court House. Price $3,500.

No. 49. 600 acres. 1 mile from Surry Courthouse, 4½ miles from James River; 300 acres open, all marled, most in clover, and now productive of good crops of wheat and corn; good 2 story dwelling; abundance of marl; good springs; much good timber and wood. Price about $5,000.

No. 50. 500 acres, all in wood, adjoining the above; it will cut 30 cords of wood per acre, and is within 1½ miles of a landing Price $3,000.

No. 51. 585 acres adjoining the above; 150 acres open; 250 in virgin growth. 1½ miles from Surry Courthouse. It is well watered. and has abundance of marl; a public road divides the tract, and each part has an old house upon it. Price $4 per acre.

No. 52. 793 acres, 3 miles from Cabin Point, and 5 miles from James River; 250 acres cleared; plenty of good marl; a good 2 story dwelling and out buildings; a good mill seat and old mill; much good timber and wood. Price $5,000.

No. 53. 470 acres, 4 miles from Surry Courthouse. adjoining Swan's Point on James River; about 150 acres in cultivation, all marled; plenty of marl; a good landing on Cross Creek, which bounds one side of the farm, dividing it from No. 48. Game and fish are abundant. An excellen two story dwelling, out houses and garden; good springs. &c. Price about $3,500.

No. 54. 724 acres near Williamsburg. Va.; 400 acres in oak and pine timber, on a navigable stream; abundance of marl. Most of the open land has been improved, and produces good crops of corn, wheat, clover, &c., &c. The buildings are comfortable; terms accommodating. Also, a valuable Manufacturing Mill within six miles of the above land.

No. 55. 7,000 acres on James River, in Charles City county, near 3,000 acres in cultivation. and highly improved. The soil is of first quality, and now bears from 25 to 30 bushels of wheat; 50 to 60 bushels of corn per acre. There are numerous dwellings, barns and mills, all in excellent order. The timber is unsurpassed. Upwards of 3.000 acres are in virgin growth, of excellent white oak for ship building, and heart pines of the largest size and best quality. Many of the trees being from 3 to 4 feet in diameter, and from 50 to 75 feet to the first branch. This estate fronts on the James River for 6 to 8 miles. There is an excellent wharf. where vessels drawing 16 feet water, lie afloat at low tide; and the steamboats to and from Baltimore, Norfolk, Petersburg and Richmond stop daily. This estate is worthy the attention of agriculturists, ship builders and lumber men. It will be sold either altogether or in portions to suit purchasers, and the terms will be very accommodating. A map of the whole will soon be prepared.

No. 56. 213½ acres, about half in cultivation, and in good order. 1 mile from Surry Courthouse, and 3 miles from Carter's Wharf. on James River, where the steamboats stop every day. It has on it 1,000 cords of wood, within 1½ miles of a good landing; plenty of marl. The buildings are in good order. The dwelling is 30 feet square, with 2 rooms and a passage on the first floor, 4 rooms above and a finished basement. Vessels from New York, &c., come here every spring for early fruits. potatoes. &c. Price $1,500, cash.

The subscriber earnestly invites the attention of his friends. anp all who are seeking new homes and profitable investments to these properties, and others which he has in his care. Believing that this region possesses substantial advantages over any other part of the United States, in climate, soil, low prices of land, navigation, and facilities for travel and transportation of produce to the best markets, he invites a thorough examination. and promises every aid in his power.

All post-paid letters will be promptly answered

Petersburg, Va., 4 mo., 9th, 1849. SAMUEL S. GRISCOM.

Monroe Nursery,

RIDGE ROAD, SIX MILES WEST OF ROCHESTER.

THE undersigned, proprietor of the above well known establishment, takes this opportunity of returning thanks to his friends and the public for their liberal patronage last spring. He offers this fall, a complete assortment of Nursery Productions—(he does not presume to say that he has a larger stock than his nursery friends, but he has as good)—at greatly reduced prices, and warranted correct. His Cherry Trees are particularly fine of three years growth, and 8 to 10 feet high.

He would invite all about making purchases of trees, &c. this fall, to come and examine his stock previous to looking elsewhere

The public is again notified that N. Goodsell is not employed by him CHARLES POWIS.

Greece, N Y., Oct. 1, 1849. [10-2m]

BAGS!—at 12 Buffalo-Street.

I WOULD respecfully call the attention of farmers, millers, forwarders, &c., to my assortment of BAGS and BAGGING. I have every variety of Bags from 18c. upwards. Call and see, and be satisfied. Also. a good assortment of Halter Rope, Cordage and Twine, of every description. E. C. WILLIAMS,

[9-tf] Ship Chandler and Sail Maker, No. 12 Buffalo-st.

Buffalo Nursery and Horticultural Garden.

THE Proprietor of this old establishment offers for sale a very large assortment of FRUIT AND ORNAMENTAL TREES, FLOWERING SHRUBS, &c. The Fruit Trees are very vigorous and healthy. His whole stock has been propagated with the greatest care, and mostly from bearing trees, growing on his own grounds.

Apple Trees of some fifty of the most choice sorts, including Northern Spy, Roxbury Russet, &c., &c., by the thousand at very reduced prices. Dwarf Pears, a fine assortment of beautiful trees. *No fire-blight in these nurseries.* 8.000 Peach Trees, of the very best sorts; fine trees and free from all disease. Cherries; a fine collection grown with low heads Also, a good assortment of the Plum, Pear, Apricot, Nectarine, Quince, and all the smaller fruits.

The assortment of Ornamental Trees, Flowering Shrubs, &c., comprises almost every desirable article. Annual importations are made from Europe of new and rare varieties of Fruits, Roses, &c Apple, Pear, Quince aud Plum STOCKS by the quantity, and Nurserymen supplied with trees of large or small size at low prices.

Orders by mail or otherwise, and letters of inquiry will receive prompt attention. Every article carefully labelled, securely packed and forwarded agreeable to order, and with the least possible delay.

☞ Descriptive Catalogues sent gratis to all who apply (post paid,) and every article will be sold at the lowest nursery prices.

Buffalo, N. Y., Sept. 1. 1849. B. HODGE.

Walworth Nursery.

GREAT INDUCEMENTS TO PURCHASE FRUIT TREES.—I propose to sell at my extensive Nursery about 20,000 good thrifty grafted Apple Trees four years old, at very reduced prices by the thousand. Being engaged in other business that requires mostly my attention the present season, I am disposed to offer rare inducements to those who wish to purchase in large quantities.

The Apples consist mainly of Baldwin, Rhode Island Greening, Roxbury and Golden Russets, Esopus Spitzenburg, Talman Sweeting, Golden Sweeting, and many other sorts in smaller proportions.

Also, for sale a good assortment of Pear, Cherry and Peach Trees of the most desirable sorts. G. T. YEOMANS.

Walworth, Wayne Co., N. Y., 1849. [10-1*]

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD, GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1, 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years, and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple, substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention. J. A. HOLMES & CO.

Brockport, March 15, 1849.

MOUNT HOPE GARDEN AND NURSERIES,

ROCHESTER, N. Y.

THE proprietors invite the attention of Fruit Growers, Nurserymen, and dealers in trees to their present stock now offered for sale. By recent large importations from Europe, and an extensive scale of propagation at home, we have obtained a stock of nursery articles as complete as any in the country, and we offer them to purchasers on the most liberal conditions.

The well known health, vigor and hardiness of the trees raised here, and the undivided and scrupulous attention given to every department by the propietors in person, offer great inducements to purchasers.

STANDARD FRUIT TREES,

Consisting of all the best varieties of the *Apple*, *Pear*, *Plum*, *Cherry*, *Peach*, *&c.*, of suitable age and size for orchard planting. The principal stock is made up of the well known popular sorts, but all the new American and foreign kinds are in our possession, and can be furnished.

PYRIMIDAL AND DWARF TREES,

Consisting of select varieties of Pears on Quince, Apples on Paradise, and Cherries on St. Lucie, or Mahaleb stocks, for gardens, and limited grounds; and for nurserymen and others who wish to obtain fruit from their trees at an early day. We have for many years given special attention to this department, and therefore believe we have probably the largest and best stock in the Union.

GOOSEBERRIES, RASPBERRIES, CURRANTS, ETC.

Of these we have a large and complete assortment, and can supply them by the 100 or 1000. The best English Gooseberries are imported every year. All the new Currants can be supplied.

ORNAMENTAL TREES, SHRUB ROSES, ETC.

All the leading sorts, such as Horse Chesnut, Mountain Ash, Ailantus, &c., can be furnished by the 1000 or 10,000 at much below ordinary rates—besides a large collection of new and rare Trees Shrubs, Roses, &c., recently imported.

HEDGE PLANTS.

Buckthorn 2, and 3 years from seed; Osage Orange, 1 and 2 years; Privet; besides Evergreens, such as Red Cedar, Hemlock, Norway Spruce, Arbor Vitæ, &c., can be furnished to any extent required.

STOCKS AND YOUNG WORKED TREES FOR NURSERYMEN.

Pear Seedlings, 1 and 2 years transplanted; Plum do., 2 years from seed bed; Paradise Stocks, for Dwarf Apples; Mazzard Cherry Seedlings, 1 year; St. Lucie, or Mahaleb Stocks, for dwarf Cherries; Quince Stocks, of sorts commonly used.

Young worked tres for distant transportation.

NEW UPRIGHT QUINCE the most easily propagated, and freest grower. We have now obtained a pretty large stock, and can supply them in moderate quantities.

Wholesale Priced Lists and General Catalogues forwarded to all post-paid applications.

Sep 1, 1849. ELLWANGER & BARRY.

Albany Agricultural Warehouse,

No. 369 & 371 SOUTH BROADWAY.

THE Subscriber having during the past season suffered in common with many of his fellow citizens—his warehouse being consumed, &c.—has procured the spacious new store erected for his business, No. 369 and 371 South Broadway, where he has an extensive assortment of all the best and leading AGRICULTURAL IMPLEMENTS and MACHINES in use. From his long and successful experience in the manufacture and sale of articles in his line, he flatters himself that he can suit the wants of the farming public to the best of its kind, and on as favorable terms as any other manufacturer in the States.

Among his assortment are his celebrated Horse Powers, Threshing Machines and Separators.

Smith's Patent Cornshellers for horse power.

Clinton Hand Shellers, single and double hopper; Grant's Patent Premium Fanning Mills, for power and hand, &c, &c.

Also, a complete assortment of Garden, Field and Grass Seeds.

[9-tf] H. L. EMERY.

DR. KITTRIDGE'S

CELEBRATED SPRAIN & RHEUMATIC LINIMENT.

NO better preparation was ever offered to the public for the following complaints:—Rheumatism, Lame Backs, Bruises, Sprains, Stiff or Contracted Tendons, Swellings, Stiff Neck, Nervous Headache, Earache, &c

This Liniment is likewise excelled by none in its use upon Horse and other Animal Flesh, for curing Spavins, Sprains, Sweenies, Galls and all flesh wounds.

Price Fifty Cents per bottle. Prepared and sold, wholesale and retail, by A. GRANT.

No. 43 Exchange-st., Rochester, N. Y.

AGENTS.—Isaac Mitchell, East Bloomfield; S. D. Lundy, Waterloo; W. P. Matison & Co., Seneca Falls; E. W. Cheney & Sons, Canandaigua; Clark & Pierce, Livonia; H. Tilton, Moscow; Whitney & Laflin, Mt. Morris; Ely & Co., Clyde.

October 1, 1849. [10-tf]

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office.

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Market Prices of Agricultural Products.

New York, Sept. 24.

Ashes.—Market very firm with a good demand, but sales are restricted owing to a limited receipt. Pots firm at $7 and Pearls steady at $6 50.

Cotton.—Rather better on the medium grades. In some instances ⅛c better. Sales 3.000 bales.

Flour & Meal—Market for Western and State Flour is again 6d better with a good eastern and home demand, particularly for new western. Moderate demand for inferior grades for export, and for this description the market is unchanged Sales 6,000 bbls at $3*a*4 for uninspected fine. 4 87 *a* $5 for common State and mixed Mich. old. $5*a*5 12 strait State and old Western, 5 18*a*5 31 for new Michigan, 5 31*a*5 44 pure Genesee. Sales 140 bbls Jersey Meal at 3 18.

Grain.—Market better for Wheat. Sales 3.300 bush prime Genesee at 1 20*a*1 21. 1200 bu inferior Chicago at about 67 and a cargo of new southern on private terms. Corn 18.000 bu at 58*a*50 western mixed. 60*a*61 flat and round yellow. Oats 37*a*38 for old, and 35*a*36 for Jersey.

Provisions.—Ohio pork is heavy with a fair demand from the trade: sales 800 bbls at 10 for mess and 8 50 for prime, and 9 13 sour mess. Dressed hogs in good demand at 6*a*7c. Lard heavy with fair demand; sales 700 bls at 6*a*7 for good to prime. Beef steady; sales 250 bls at 13*a*14, for mess and 75 bls prime at 9 60. Butter heavy. Ohio 7*a*10 and 10*a*14 for state. Cheese saleable at 4*a*6 and arriving freely.

To Advertisers.—The Publisher of the Farmer begs to remind all interested, that his terms for advertising, as well as subscription, are *cash in advance*. Those who wish to avail themselves of the superior advantages of the Farmer as an advertising medium, should send requisite payment with their orders, *to secure attention and insertion*; and those whose notices do not appear, will, with this explanation, understand the reason.

In most cases, in which we have, in order to accommodate distant friends. (?) published notices without a rigid adherence to advance terms, vexation and loss have been our reward for the favor extended. We have hundreds of dollars due us, which we are unable to collect by ordinary means Many to whom we send bills, requesting payment, give the matter no attention whatever—and thus, after being *largely benefitted* by our extensive circulation, either *refuse* or *neglect* to be———. This is pleasant —very. However, some of these silent gentlemen may possibly soon receive a benefit through the pages of the Farmer in the shape of an *entirely gratuitous and conspicuous notice*—the only way perhaps in which we can square accounts! ☞

Back numbers and volumes of the Farmer promptly supplied to agents and new subscribers.

Patent Improved Railroad Horse-Power and Overshot Thresher and Separator.

THIS Power & Thresher, which has been so long before the public, and given such perfect and universal satisfaction, has met with such a constant and rapidly increasing sale, that other manufacturers sometimes adopt headings similar to those of my advertisement—and, in some cases, parts of the advertisements themselves—which, if not observed, may lead to mistakes, and purchasers may get, instead of the machine which has earned the reputation, one of a different construction.

The machine has been much improved, and no pains or expense is spared to make it in the most thorough and durable manner, as we have the greatest facilities as to power, room and materials at our command. It is the cheapest, simplest, most durable and portable set of machinery for the purpose in use, and warranted in every case to give satisfaction to the purchaser. For further particulars see my advertisements in the agricultural papers of the United States and Canada. Catalogues and circulars furnished gratis on application by mail.

HORACE L. EMERY,
Agricultural Warehouse, 369 & 371, Broadway, Albany, N. Y.

Improved Horse Power, Thrasher, &c.

ALLEN'S IMPROVED PORTABLE RAIL-ROAD HORSE POWER AND OVERSHOT THRASHER AND SEPARATOR.—The superiority of this Power consists in the facility of driving a machine in either direction without crossing the belt by the use simply of an additional pinion. There is less friction in this Power than in any other of similar construction. it consequently works easier and will last longer. The materials are all of the best kind, and put together on the best principles and in the most workmanlike manner. Powers for the past ten years have been made on nearly the same principles as the above, and have given general satisfaction. All are warranted to work well.

Thrashers both Over and Under-shot. Separators with fixtures, &c.

A. B. ALLEN & CO.,
Agricultural Warehouse & Seed Store,
[10-1m] Nos. 189 & 191 Water-st., New York.

Improved Well and Cistern Pumps.

DOWNS, MYNDHERSE & CO., of Seneca Falls, N. Y., would call the attention of Hardware Merchants and all others who have occasion to deal in or use suction pumps, to their *CAST IRON, REVOLVING SPOUT AND CISTERN PUMPS*, for which they have obtained Letters Patent of the United States. For particular description and figures of our Pump, see August number of the Genesee Farmer, page 181. [9-tf]

Tents for County Fairs, &c.

TWO Splendid PAVILLIONS of the following dimensions— one 90 by 50 feet, and the other 50 feet in diameter. These tents are new, and impervious to water, and can be erected in two hours. The largest one will convene from 1.000 to 1,200 persons.

E. C. WILLIAMS,
[10-1t] 12 Buffalo-st., Rochester, N. Y.

A Small Farm Wanted.

A Letter addressed to C. S., Newport, N. Y., describing the premises, and mentioning the terms, will receive attention.

August, 1849. [8—3t*.

THE GENESEE FARMER,

Published on the first of each month, at Rochester, N. Y., by
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.

P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

Five Copies for $2, and any larger number at the same rate, if directed to each subscriber. Eight Copies for $3, if addressed to *one person only*—and any larger number, directed in like manner, at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—in advance. The circulation of the Farmer is from five to eight thousand larger than that of any other agricultural journal published in the United States.

☞ Advertisements, notices, &c. should be forwarded on or before the 15th of the preceding month, to secure insertion in any specified number.

☞ The Farmer is subject to newspaper postage only.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—NOVEMBER, 1849. NO. 11.

THE PREVENTION OF DISEASE.

On no subject do people at large more need instruction than on that of preventing disease, or of *preserving health.* Believing that a cheap publication placed within the reach of all, is the proper medium through which to enlighten the popular understanding, we shall offer no apology for introducing the discussion of this important topic in our columns. The writer has spent the two last summers in the Southern States, and has very recently visited the western country, and searched after the causes of cholera in the cities of Detroit, Sandusky, Springfield, Chillicothe, Portsmouth, Cincinnati, Maysville, and elsewhere. There is a large farm on the Sciota bottoms, between Columbus and Circleville devoted to the cultivation of broom corn, on which thirty-five hands were attacked with the cholera, which proved fatal to thirty-four of their number. The fatality at Sandusky was only a little less, when the pestilence was at the acme of its intensity.

We had occasion to study this malady during its prevalence in the city of Buffalo in the years 1832 and '34, as a practicing physician. It is not our purpose to write an article for the perusal of the profession; nor to review any of the several ingenious theories invented to account for the production of this or any other malignant disorder. It is enough to say that we do not believe that any excess or deficiency in atmospheric electricity, nor the growth of microscopic fungi in the human system, will account for the killing of thirty-four persons out of thirty-five attacked with cholera on one plantation, and the escape of all others on healthy farms hard by. In a word, we believe that cholera, plague, ship fever, yellow fever and fever and ague are the results of *local causes*, which in most cases can be removed to the inestimable advantage of the human family. There has not been a single case of cholera in any city or village in the large State of Georgia this season. Something like this complaint has prevailed on one or two rice plantations in the Savannah swamps. Cholera was very severe early in the summer on the Mississippi from New Orleans upward.

In 1817, says the London Times, "the overflow of the river Ganges had swelled to a greater height than usual the annual inundation of the marshy plains adjacent. Cities and villages appeared like houses in the midst of a temporary ocean, covered with innumerable boats, and traversed even by vessels of 100 tons burthen. The whole country round Jessore was one sheet of water, and those jungly marshes, known as the Sunderlands, which are intersected by the numberless streams forming the delta of the Ganges, lay steaming in a moist calm air, neither quite overflowed, nor yet quite dry, a hot-bed of putrescent miasma.

"It was under such circumstances, aggravated by the heats of August, that the first seizure occurred at Jessore. The mortality spread rapidly among the population, afflicting chiefly the miserable Pariahs, who earn, by excessive toil under a vertical sun, only about 2½d a day, and who live in squalid hovels, crowded and damp, in the filthiest quarters of the town. In a few weeks 10,000 souls, a sixth of the population, had perished. The civil courts were closed, business was suspended, and the wealthier inhabitants fled in crowds to the country. Within a month the disease broke out in Calcutta, about 100 miles to the south-west, brought, as some say, by fugitives from Jessore: originating spontaneously, as others suppose, from the same cause in both places. Here, also, it committed fearful ravages, destroying daily 200 persons. Its migratory character soon became terribly apparent; within a few weeks it had devastated every town and village within an area of several thousand square miles, from Sylhet in the east, to Cuttack in the west, and from the mouth of the Ganges upward to its confluence with the Jumna."

In coming from Southern to Northern cities, we were forcibly struck with the lack of cleanliness in the latter where cholera has most prevailed, as compared with the neatness of those at the South where rigid sanitary measures have *prevented* the disease. It is not pleasant to speak in terms which imply censure of one's fellow citizens in any city or place; but when he sees his neighbor's house on fire, and knows that the whole family are asleep under its roof, it is his duty to cry aloud, even if it shall disturb the quiet slumber of the whole neighborhood. The germs of pestilence in a city are precisely like sparks of fire on the roof of an old building, or "like the little leaven which leaveneth the whole lump."

Many a good man and many a good family have been poisoned to death within the last six months by drinking impure water and breathing impure air, which impurities were as removable as they were fatal. It was *bad water* more than a contaminated atmosphere that killed the thirty-four persons on the Sciota farm which we visited. If one were to immerse rotten potatoes or spoilt meat in water, and then drink it, or use the water for culinary purposes, the common sense and general observation of all would lead them to expect sickness to follow such a course of conduct. Now, in hot climates and in the summer season in cold ones, the earth is covered with decaying vegetable and animal substances. To speak plainly, in cities, villages and in and around many houses, barns and stables, these organic matters are concentrated till they become hot-beds of pestilence. As the elements of disease are invisible, are volatile, and often not appreciated by any sense, families may poison themselves and neighbors without knowing it We spent a day in exploring the by-ways, alleys, back yards, cellars of unoccupied dwellings, ponds and pools of Sandusky. It stands on a level, or nearly level plain, and is underlaid with strata of lime rock, which comes near to the surface. When full justice shall be done to lime that abounds in organic remains, in producing a luxuriant growth of vegetables for sustaining animal life, the discovery will be made that inasmuch as plants and animals do not live always, their decomposition must in the end be equal to their organization. In a word, without the light and aid of science, to modify and control the decay of animal and vegetable substances, all rich farming districts must be sickly in summer and autumn.

There is a great deal of well water in this city, (Rochester,) and Western New York, which is not so good as filtered rain water for domestic use. If drank or otherwise taken into the stomach, it should be first purified. How this can be most economically done, will be fully explained in future numbers of this journal. Good health is above all price in value. Whole communities should cordially unite in all wise measures for its preservation. Believing, after considerable study and close observation, that half or three-fourths of the summer complaints, if not those of winter, *may be prevented*, we shall take pleasure in developing those physical laws of the human system and of the organized matter by which it is nourished, free from all medical technicalities. Few have duly considered the very limited knowledge of poisons, which the masses in any country now possess. This popular ignorance of the Laws of Health should be banished from this Republic, for it leads to sad and deplorable results.

PREPARE FOR WINTER.

There is much to be done in the fall by every farmer, to render all comfortable through the winter. Sheds need repairing, or new ones should be built. Apples, potatoes and garden vegetables need attention. If not already secured from frost, no time ought to be lost in protecting them from the same. Bank up the cellar, have a good supply of fire wood under cover, and see that all stables and yards are ready for use. Remember that to a considerable degree, warm shelter for domestic animals is equivalent to food. If exposed to storms and severe cold, they will need thirty per cent more forage to carry them well through till May than they will if properly housed and fed. In addition to this their manure can be all saved and turned to a valuable account next season. By all means keep your dung heaps under shelter, that they may lose nothing by leaching. Cattle, horses, hogs and sheep are most profitable, when one is sure that he saves from the possibility of loss all the matter voided by them in the course of the fall and winter.

The excretions formed by the consumption of 100 pounds of corn, oats or hay, will add 150 to 200 pounds to the corn, oat or hay crop of the next year, if skillfully managed. The first thing is to save and make all the manure which one reasonably can, and then study to obtain the largest practical gain from this raw material applied to the soil. Not a year passes in which fertilizers worth several millions are not wasted in the United States. Think of these immense losses, and set a better example to your brother farmers. Demonstrate to them that you save every pound of dung and urine that falls in your stables, yards and fields.

Make provision for watering stock conveniently, if your premises lack in that regard.

While preparing for winter, forget not to add a few choice books to your agricultural library, for the whole family to read and improve in useful knowledge.

OXALIS CRENATA.

A paper was recently read before the London Society of Arts, received from Baron de Suarce, on the Oxalis Crenata, specimens of which were exhibited.

The Oxalis Crenata has been known to the scientific agriculturists of Europe for some years. It is a tubercle, the culture of which, however, upon a large scale, has been little practiced. This tubercle is stated by Baron de Suarce (who has cultivated about two acres and a half of it upon his own estate in the south of France,) to possess a larger degree of nutriment than most of the farinaceous plants which form the basis of human food in our climate. The total weight of the crop produced upon two acres and a half cultivated by him, was ten tons, from which three tons of flour were obtained.

From the stems of the plants, which may be cut twice a year, and may be eaten as a sallad or spinach, ninety gallons of a strong acid were obtained, which, when mixed with three times its bulk of water, was well adapted for drink. The acid, if fermented and brought to an equal degree of acidity with vinegar, is superior to the latter when used for curing or preserving meat, as it does not render it hard, or communicate to it a bad flavor.

The flour obtained from the Oxalis Crenata is superior to that obtained from the potato, maize or buckwheat, as it makes an excellent light bread when mixed in the proportion of one-fourth with corn flour; this is not the case with potato, maize or buckwheat flour.

The Baron concludes his paper by expressing his willingness to make any further communication to the society on this subject that they might desire, as he would consider it a great happiness to be enabled, with the aid of the society, to introduce into England the culture of the tubercle, which seems destined to become a source of food for the lower classes, more precious perhaps than even the potato.

In reply to a series of questions, the Baron stated that the Oxalis Crenata came originally from South America—that it is hardy and unaffected by change of temperature, and grows readily in any soil, it being difficult when once introduced to eradicate it.

The thanks of the meeting were presented to the author for his communication.—*Artisan.*

THE PHILOSOPHY OF TILLAGE.

ONE of the editors of this journal contributed to the Transactions of the New York State Agricultural Society for 1848, an essay on the "*Philosophy of Tillage*," which it is believed will be read with interest by thousands of our subscribers who do not have access to the Transactions, if copied into the Farmer. Most of the essay, if not the whole of it, will appear in this and the succeeding number. Its design is to prompt young persons *to think*—to reason—to study questions of great practical utility. Young friends, go beyond the mere surface of your profession. Dig into it with a resolute purpose to achieve distinction, and master the several sciences that relate to rural affairs. Investigate the nature and properties of *things*, and the natural laws that govern them, whether they exist in the form of solid rocks, of invisible gases, loose friable soils, growing plants, walking animals, or rotting manure. It is *things* and *natural laws* with which the farmer has to do. Read carefully, understand these, and your honest toil will be more agreeable, more honorable and more useful to yourself and to the world.

THE PHILOSOPHY OF TILLAGE.

BY DANIEL LEE, M. D.

The art of transforming soil into bread, is one of the oldest in the world. Old as it is, the operation has hardly begun to excite that deep interest and universal study which all bread-eaters, at some future day, will bestow on a subject of such vital importance. Americans now experience no pressing necessity for improving the art of tillage. Although not urgent, this necessity really exists, and it is growing upon the country much faster than is appreciated.

After taking a calm survey of our farming operations in the southern, western, middle and northern States, I am constrained to believe that two-thirds of the tillage now in progress throughout the Union, is conducted on a system which, slowly or rapidly, as the case may be, impairs the natural fertility of the soil. In the planting States, the process of exhaustion is greatly promoted by excessive plowing and hoeing, and an increased degree of solar heat and light, which hastens the decomposition and consumption of vegetable mold, and of all the soluble mineral elements of cultivated plants. Improved plows, cultivators, and other implements, have been placed in the hands of millions of industrious laborers, to scratch, skin, and bleed the virgin soil for a few years, which, with the assistance of a bright, burning sun, and washing rains, soon consummates a very satisfactory degree of general desolation. When one plantation ceases to yield a profit on the labor employed in its culture, it is deserted, and a new one opened by felling the native forest.

This impoverishing system of agriculture is by no means peculiar to the cotton and tobacco growing States. No State in the Union is exempt from its blighting effects. Everywhere farmers claim, and freely exercise the right to skim the cream off their lands, and pick the bones of their mother Earth, for the sake of the almighty dollar. "Posterity has done nothing for them;" and their duty to leave the soil in any State, as rich as they found it, to feed and clothe an ever increasing population, is not generally recognized. The twenty-two millions of people now in the United States, act on the principle that it is wise and just to compel the forty-four millions that will be here twenty-five years hence, to give twice as much hard work for their bread, wool, cotton, flax, and hemp, as their fathers gave; or to emigrate into the wilderness, as many of their fathers did. Nothing is better known to practical farmers, than the fact, that the poorer land is made by excessive and unwise cropping, the more labor it takes to grow one hundred bushels of wheat, or one hundred bales of cotton. Any system of agriculture which impairs the productiveness of a field in the course of twenty-five years, will compel the next generation to give more sweat for bread; or seek new fields over which the plowshare of industrious, semi-savage money-hunters, has never passed. Is it not plain, that if twenty millions of people may now rightfully exhaust, to the last possible degree, one-third of the farming lands in the States, forty millions, a quarter of a century hence, may rightfully exhaust the other two-thirds.

Great industry and mechanical skill, in consuming and wasting the elements of bread and meat which a kind Providence has placed on and near the surface of the earth, are more praised than they deserve. We are too much mere physical machines; at once over-working our hands and brutifying our intellects, to the positive injury of the human family, and for no real benefit to the inheritors of our property. If we can contrive to leave our children a reasonable surface of good farming land, we need not be at the trouble of converting its soil into current gold for them. Give them a thorough knowledge of the laws of nature, by which one kernel of corn produces a thousand, and the toil required to effect this result, will be no more than the laws of health, of bodily strength and comfort, demand. A reasonable amount of manual labor, a little sweating of the face, will sweeten the bread and sweeten the sleep of any person

It is difficult to study closely the agriculture of a nation and the philosophy of tillage, and not be deeply impressed with the importance of developing *aright* the moral and intellectual as well as the physical Man. It is not enough that a few cultivators in every State be well educated, in the largest and best sense of the term. The whole rural industry equally needs the direction of cultivated reason. Without this, there will be a prodigious waste of muscular strength, and a still more disastrous loss of the elements of all crops. That portion of the substance of a soil which enters the roots of cultivated plants, circulates through their capillary tubes, and is finally assimilated into their tissues, stems, leaves and seeds, is very liable to be lost, by something like "a slip between the cup and the lip." Without some knowledge of the science of rural economy, and of the philosophy of tillage, no one can duly appreciate the extent of this loss of fertilizing atoms which in truth never enter into the composition of the crop. It is the leading object of this essay to explain how this loss of the elements of bread and meat takes place; and to suggest the best process for avoiding it.

In the first place I desire to impress upon the mind of the reader the fact, that the plow, the harrow, the cultivator, and the hoe, with which the earth is tilled, neither add any matter to, nor take any away from the surface operated on. And yet, without plowing, or tillage of some kind, no one can long grow cereal plants, potatoes, cane, tobacco, or cotton. Tillage, as is apparent, does work indirectly a material change in the soil, although nothing is added directly to it by the hand of the cultivator. What is this important *change*, which so uniformly follows the skilful use of rural implements, and which would not ensue, if no plowing or tillage was performed? The proper answer to this question, is the first thing we have to study.

Before plowing, the ground is comparatively compact and impervious to air. After it has been well plowed and harrowed, it is exceedingly porous and mellow, to the depth which the implements have penetrated. The atmosphere over every field and elsewhere, always contains several gaseous bodies, called oxygen, or vital air, nitrogen, or azote, carbonic acid, and occasional traces of ammonia, and volatile compounds of phosphorus, sulphur and chlorine. These gaseous substances, with the addition of a few earthy substances, like pure flint, iron, lime, potash, soda, and magnesia, make up the whole weight of all vegetables and animals. Technically speaking, *a soil* is formed by the intimate union of pure mold, derived from partially decayed leaves, trees, grass, weeds, the bodies of insects, and all other vegetable or animal matters, with pure clay, sand, and other incombustible earths. The proportions of mold, sand, clay, &c., vary indefinitely. Experience has demonstrated the interesting fact, that a soil which is annually plowed and hoed, and from which all the plants that grow are removed, loses its mold, or organic matter quite rapidly. If the ground be well cultivated, and no vegetable whatever be allowed to grow therein, the consumption or decomposition of the remains of former vegetation, will still go on quite as fast as it would, provided the surface were shaded by a crop. Indeed, my own opinion is, founded on what I have seen in Georgia and South Carolina, that organic matter in a naked plowed and hoed field, will be consumed, literally burnt up, much faster than will mold, or similar organized matter, shaded by a forest of trees, or a forest of thick corn or cotton. How tillage hastens the consumption of mold, and the solution of the before comparatively insoluble salts, which appear as *ashes* when we burn wood or cultivated plants, deserves particular notice.

A cubic inch of hard wood, like a cubic inch of hard earth, will imbibe little or no gas or air. By a curious law of nature, a cubic inch of charcoal will absorb and condense within its innumerable cavities, ninety cubic inches of ammonia. It will also condense other gases and vapors. In garden culture, and first rate field tillage, the soil is thoroughly mellowed, and rendered remarkably *porous*.

Now let us see what nature does, man having done his part. The atmospheric air, which is twenty-one per cent of oxygen, penetrates as far as the plow did, and is largely condensed in the pores of the soil. During the day, if the air is comparatively dry and the sun shines, a pretty rapid evaporation will ensue. Instead of drying a well cultivated surface, as it would a compact one, moisture freely ascends from the subsoil, by capillary attraction, to fill the void above. In this ascent of water, is brought up whatever soluble gases, mold, and salts of potash, lime, etc., rain or snow water had taken out of the surface soil in its previous descent. If the ground be covered with vegetables, a large share of this ascending water will enter their roots, ascend to their leaves, and there escape as a vapor into the atmosphere; leaving behind those salts and gases required to organize and bring up the plant. If no vegetation exists and covers the ground, the water evaporates as it reaches the surface, leaving all involatile salts behind, and discharging all gasses into the air. At night, and when the atmosphere is quite damp and the soil dry the latter condenses dew or vapors, as the case may be, preparatory to feeding crops.

A due degree of solar heat, light, moisture, and of *condensed* oxygen, around minute particles of the debris of plants in tilled ground, greatly promotes the chemical combination of this oxygen with the carbon in the mold, or the remains of plants.

When mold is thus consumed, this oxygen and carbon form the gas called carbonic acid; the presence of which in water enables it to dissolve common limestone. This mineral (carbonate of lime) is quite insoluble in distilled water. All rain water contains a little carbonic acid as it falls, which prepares it to dissolve the inorganic food of plants. To raise large crops, it is needful for water to have a little more of this gas than the atmosphere can furnish. Manure and decaying vegetables will yield this in mellow soils.

As not far from one-half of the dry weight of all plants, and some forty per cent of all animals is *carbon*, it may be a favor to readers whose knowledge of chemistry is very limited, to say a few words about this element. If wood, straw, coffee, wheat, sugar, oil, starch, or lean meat, be slowly burnt, with the air nearly all excluded, on the principle of a coalpit, *coal* will be formed. This coal is *carbon*. The simple element is the same in anthracite and bituminous coal, as in coal produced from a crust of bread. In burning, this carbon unites chemically with vital air, called oxygen, in the proportion of six parts by weight of carbon, to sixteen of oxygen; which, together make twenty-two parts of an invisible, heavy gas, called *carbonic acid*.

If we examine the air thrown out of the lungs of a man or other animal for this gas, it will be found to contain one hundred times more carbonic acid, than it did when inhaled into the lungs. As animals breathe night and day during their whole lives, and are ever expelling carbon from their organs of respiration, it is obvious they must supply carbon to their circulating blood, in their food, at short intervals. On comparing the dry weight of all the matter excreted from the system by the bowels and kidneys, with that taken into the stomach, the weight of the latter exceeds that of the former by more than half.

From some experiments which I have made, I have reason to believe that the excretions of birds when dried, do not exceed twenty per cent of the dry matter eaten by them. If we examine the bubbles of gas that rise so freely on the surface of fermenting beer, in the large tubs of breweries and distilleries, it will be found to be carbonic acid; and it is often used to convert pearlash into saleratus; or the carbonates of potash and soda into the bicarbonates of those alkalies.

There is then, a natural tendency, or rather a natural law, by the force of which oxygen gas combines with carbon in the combustion of carbonaceous bodies, in all respiration, in all fermentation, and in the rotting of all organized substances. The reader will get a clearer idea of the part which carbon plays in the economy of vegetable and animal life, by a short explanation of the other constituents united with it, in organizing the seeds and other parts of plants. The other elements of what is called "organic matter," are nitrogen or azote; hydrogen and oxygen;

although phosphorus, sulphur and chlorine might with propriety be included among the volatile or gaseous elements of bread and meat. I am not entirely satisfied with all that books say on this subject; but I do not wish to discuss debatable points in this connection.

Woody fibre, gum, sugar, starch and oil, which constitute so large a portion of all vegetables, are composed of carbon and the elements of water alone. The elements of water are oxygen and hydrogen, chemically combined in the ratio of eight parts by weight of the former to one of the latter. And here permit me to remark that, to secure perfect *uniformity* in the properties and character of all chemical compounds, like pure water, all acids, alkalies, pure alcohol, and such organized bodies as starch, wood, sugar, oil and gum, the quantity of elementary atoms which enter into the composition of each compound substance *must be fixed* by a uniform and ever active law. For the proper government of matter, the Creator has established many laws, and among others that known as "chemical affinity." In the growth or organization of all living things, and in the dissolution or disorganization of the same, the natural affinity of elementary atoms, by which they unite and form various compounds, presents to the intelligent farmer a most useful and interesting study. As all natural laws which govern the results of tillage, are in truth the unchanging and ever enduring laws of God, I have long felt it to be a duty to impress upon the minds of my fellow citizens, in more States than one, the importance of teaching the Sciences which elucidate these laws, to every child that has a life to support or health to preserve. It is difficult for me to witness the decay of vegetable and animal substances, even now in the winter season at the South, and mark the bilious diseases, *cholera* and other destroying maladies, engendered by poisoning the atmosphere and rendering the water impure, and not feel deeply on the subject of removing the popular ignorance of the laws of vegetable and animal life. This ignorance is as unnecessary as it is deplorable. As a native son of New York, I beg permission to express at this point, the pride and glory I have in common with others, which are so justly awarded to the Common Schools, Public Libraries, and all other educational institutions of the Empire State. The noble liberality of her citizens can only be appreciated when seen at a distance, and surrounded by shades and influences which I shall not describe.

Beside carbon and the elements of water, all plants and all animals contain more or less of the simple gas called nitrogen in an organized form, in their respective *tissues*. Organic chemists and physiologists are still disputing the question, whether this element, which constitutes 71 per cent. of common air, is derived by growing plants and animals in any degree, directly from the atmosphere. The weight or balance of evidence is against the supposition; although there are not wanting facts and circumstances sufficient to raise a reasonable doubt in the matter. However this question may be ultimately decided, there is no dispute in regard to the fertilizing power of nitrogeneous compounds, among practical farmers. Nor is it improbable that nascent nitrogen, evolved from decomposing mold, vegetables, and manure in soils, whether combined with hydrogen to form ammonia or not, is better suited to the nourishment of plants than is atmospheric nitrogen. The progress and presence of one chemical action, like the rotting of vegetables in soils, will induce others that would not occur under different circumstances. Before studying the process by which decaying mold and other organic substances, render common limestone and the before insoluble silicates of potash, soda and magnesia, soluble in water, I desire to call attention to the fact, that sulphur, phosphorus and chlorine in combination with hydrogen, are apt to rise into the atmosphere from rotting substances, and become lost to the agriculturist. As a general rule, cultivated plants, and all vegetables contain a small per centage of sulphur, phosphorus, nitrogen and chlorine. The cabbage tribe, the seeds of leguminous plants, like peas and beans, and those of wheat, rye, corn and other cereals, most abound in the simple elements named. In an egg these elements are more concentrated than in any other organized form. A bad egg loses weight rapidly, notwithstanding its stoney covering. Its shell is really perforated with pores; and the expansion of the gases, eliminated by the decomposition of its contents, forces them through these minute apertures. In the course of time very little beside the shell will be left. That rotten eggs, when broken, will emit very offensive gases, every farmer's son knows. These gases are compounds of sulphur, phosphorus, nitrogen and chlorine with *hydrogen*, which is the lighest known gas. It is well to consider all these exceedingly volatile atoms, which can all escape from the shell of a hen's egg without breaking it, in the form of a live chick, just hatched. When the bird comes out of the shell, no phosphorus, no sulphur, no nitrogen, no chlorine is left. If this chicken be killed and placed to rot under a hill of corn, and there emit its gases in well mellowed earth, these gases would aid much in making corn, out of which a hen would rejoice to make a new egg. Matter is wholly indestructible; and it will always require lime to form the shell of an egg, and all the precise elements found in the little bones, flesh, brain, nerves and downy covering of the bird, to organise this living being, to the end of time. I desire every school boy to understand *why* a hen can make worms, grass hoppers and mice into good eggs, and cannot do as much if fed upon white pine saw dust alone. Saw dust is organized matter, but not the organized elements of a chicken. It contains not the lime to form a shell, and not the sulphur, phosphorus and nitrogen demanded in an organized condition to form the egg and make the chicken.

No cultivated plant needs richer land than cabbage; and no one organizes more nitrogen, sulphur, phosphorus and chlorine in its tissues. When it rots no plant more contaminates the atmosphere. Hens, turkeys and ducks rejoice to eat it. Without smelling the fumes of muriatic and sulphurous acids, I think the reader should be satisfied that compounds of chlorine and sulphur, as well as those of nitrogen and phosphorus, are quite volatile, and liable to waste.

It may he interesting to a few readers, to know that, some swamps in Georgia and the adjoining States are comparatively healthy, and some extremely sickly. A chemical test for sulphuretted hydrogen in the air near a swamp, determines its salubrity or unhealthiness. If plants analagous to cabbage flourish and rot there, poisoning the atmosphere like an ocean of liquid, decomposing eggs, the settler must retire from the presence of sulphuretted hydrogen, and other mephitic gases. On the contrary, if cyprus, pine, and plants that contain but a trifle of nitrogen, sulphur and phosphorus, grow and decay, there is little or no danger. The same vegetable and animal substances that poison the air when they rot, will poison water with equal facility. All gases that escape into the atmosphere from decomposing mold or vegetation, which often cause sickness where large tracts of prairie are broken, are condensed, or soluble in rain and other water. If tillage did not largely increase the decomposition, and of course consumption of organic matter in soils, it is inconceivable how the plowing of prairies should augment disease. [*To be Continued.*]

NOTES FOR THE MONTH.

Horace Greely, at our State Fair says, "it was sad to see so many unintellectual faces there." One would have supposed that after having escaped the *cearments* of the city, friend **Greely** would have felt in such good humor with the throng at our great rural festival, as to have formed a more liberal judgment, the more especially, as it is but a few short months since Mr. G. complained how hard it was to find an honest face, even among his own political associates. But I would ask if Cockneyism with full cribs of corn, beef and pork in the cellar, and no notes in the bank, would not put on as unintellectual a face as Ruralism. It is the province of fruition to make man look dull, as it is of care and doubtful success to give mental lines to his countenance. 'Tis true that farmers lack the furbishing of that daily social intercourse which give colloquial facility to the gregarious town's people, neither are they accomplished with that mental sharpening, so inseparable from him who wins his daily bread by practicing the tricks of trade. But who would have the farmer thus improved, at the expense of his honest, independent face? Surely not the philanthropic editor of the justly famed New York Tribune.

That both farming and farmers are in a more rapid state of progress at this time in these United States, than at any former period, every man must be convinced who examines the reports of the various agricultural societies, now organized throughout the length and breadth of our land. 'Tis true that every man who lives by tillage cannot be induced, as Mr. G. would have him, to think, read and reflect. But the number of those who do keep up with the improved theories in manuring and culture, is sufficient to enlighten, by their example, all those of their own calling who are not utterly impracticable. Hence it is that at this time the theory of farming is much better than the practice. Perhaps there is no trade or calling in the land in which practice is so far below theory as in farming; "the spirit is willing, but the flesh is weak." There is not one intelligent farmer but will confess that he cultivates more land than he works well; having a large breadth of field, he prepares the soil and puts in his seed indifferently, trusting to Providence to give him a good season and a fair crop—very much like the man who trusts to luck when he buys a ticket in a lottery. But as there is no error without palliation for its consequences, the slovenly farmer is not slow to charge each failure of crop to the ravages of insects, or the untowardness of the season.

Our Seneca County Agricultural Fair, held at Ovid, on the 4th and 5th of October, is represented to have been much more interesting and more numerously attended than any one of our previous fairs. Very many thanks are due to our masterly President, **John Delafield**, Esq., the light of whose countenance is sufficient to make every man put his shoulder to the wheel of progress and reform. I am proud to say that many of our farmers attended this fair and were pleased, who heretofore had lived so deep in the rut of tradition that they could not see out on either side.

Every crop in this county is good this season. Pasture, and in some instances Indian Corn, have suffered from the extreme hot weather and continued drouth. Potatoes in August were supposed to be done for by the heat and drouth, but the September rains have induced a continued growth in this root. I have not heard a single complaint of rot up to this, (13th October.) Pink Eyes and Mercers have again caught their original flavor, and are no longer waxy and tasteless. The supply will be short, as many farmers, discouraged by previous rot, have planted only for their own use.

Anecdote of Draining.—Last spring several gentlemen called to see the justly celebrated farm of **John Johnston**, in Fayette. In going over the premises Mr. J. purposely omitted to tell them which wheat field was under-drained, and the better to elicit their surprise, he led them over one wheat field where the wet, heavy, unctuous soil adhered to their boots, much to their annoyance; then crossing the fence to another wheat field, of like soil and formation, they one and all uttered their surprise at its dry and mellow surface. "Gentleman," exclaimed Mr. J., "you are on my tile." These tile are laid twenty to thirty inches deep. They were made by Mr. **Whartenby**, in this village, (Waterloo,) with the aid of a machine imported for the purpose from England, by Mr. **Delafield**. S. W.—*Seneca Co., Oct.*, 1849.

BURRALL'S SHELL-WHEEL PLOW.

Eds. Genesee Farmer:—In your May number, I find an article by H. L. **Emrey**, purporting to be a history of the Plow and its improvements, containing statements which I deem incorrect, and injurious to me.

I cannot, for a moment suppose that you would do me an intentional injury; but having made valuable improvements by a series of laborious and expensive experiments, I am unwilling to have them kept back by the expression of hasty opinions, or incorrect statements of those who have but partially examined, or are interested in misrepresenting them. Such I deem to be the case with the writer above referred to.

He says, "in theory, by the use of a revolving landside a saving of power is obtained," &c.; "but when the earth is mellow and constantly giving way to the pressure of the wheel, *this* saving of power is *more than counterbalanced*, by the increased resistance to be overcome."

Now, without examining his theory, which has no foundation in truth, I speak only to the fact which is known to the public by repeated and careful experiments, that in all soils, and in all conditions, there is a manifest saving of power in the draft of the plow, by the use of the wheel. The average gain in the use of the wheel by **Wilkie**, nearly thirty years since, (as stated by **Loudon**,) was about thirty per cent, and the most careful experiments with mine, have given about the same result. It is therefore too late for Mr. **Emery** to say that in mellow ground the saving of power is more than counterbalanced by the increased resistance to be overcome.

Again, he says "the more *complicated construction*, and the *constant wearing* of the axis and revolving parts, has retarded its very general use." These facts are *both* assumed. The plow has *fewer* parts, and is *less* complicated than the self sharpening plow which he commends in the very next paragraph —while the *axis* and revolving parts have less friction, and wear longer than the common landside. The wheels of all those sold by me have been warranted to wear as long as the mould-boards, and of two thousand sold, not an instance has occurred to my knowledge, in which the axis has worn to injure it. On appealing to Mr. **Emery** to correct his statements, he reiterates them, and I must therefore request you, as you have given currency to them, to insert the following certificates. Yours, &c.,

Geneva, Oct., 1849. **Thos. D. Burrall.**

"I have used one of Mr. Burrall's Wheel Plows four years; have cultivated about 150 acres per year, and this plow has run nearly all the season each year, being used more than any other on the farm, from the fact that it *run lighter and made better work* than any other plow on the farm, and has plowed over 500 acres. It is now worn out completely in the *mould-board, landside*, and *face* of the wheel, while the *axis* or bearings of the wheel remain as perfect, apparently now, as when first put in use. My farm consists of clay and loamy land, and a part stoney, with gravel. In all soils it works perfectly well. Many of these are in use in my neighborhood, and highly approved by all. **Joseph Platman.**—*Benton, June* 5, 1849."

"I have used one of Mr. Burrall's Wheel Plows on my farm until the mould-board is worn entirely out, while the journals of the wheels are apparently as good as when first taken from the shop. I am now obtaining a new sett of castings for the wood, believing it to be the best plow in use. **Stephen Shear.**—*Geneva, Aug.* 13, 1849."

"I have been in the employment of Mr. Burrall ever since the commencement of his experiments with the Wheel Plow, in getting up the patterns for the same, amounting to more than twenty different kinds. There has never, to my knowledge, been an instance of failure in the axis of the wheel, though I have repeatedly seen the mould-boards brought in as old metal, completely worn out. **Elias Smith.**—*Geneva, Oct.* 12, 1849."

"For the last five years I have been in the employment of Mr. Burrall as a wood workman, most of the time in wooding Wheel Plows. I have never heard a complaint of the wearing of the axis of the wheel, nor have I ever seen, heard or known of an instance of a new wheel being called for in place of one worn out. **Nicholas H. Kip.**—*Geneva, Oct.* 12, 1849."

"Ever since the invention of the Shell Wheel Plow, I have been engaged in Mr. Burrall's shop, in setting up the castings for the Wheel Plows—have broken up a great many worn out mould-boards and landsides, but have never seen a wheel so much worn in the axis as to render it unfit for use on a new mould-board. **Samuel Price.**—*Geneva, October* 12, 1849."

Reaping Machines.—The Priarie Farmer says: "McCormick's Reaper has been now sold in the west for three seasons extensively, and somewhat before that. The sales amount, say to the following figures: for the year 1847, to 500; the year 1848, to 800; and 1849, to 1500; total, 2800. Of Esterly's Harvester, the whole number in use this harvest may reach 180. Other kinds, say 100. These all do the work of nearly 17,000 men."

Hussey's and McCormick's Reapers are the principal ones used in Western New York. Who can inform us how many of each have been sold in this State?

JUMPING AT CONCLUSIONS.

BY A YOUNG "DIGGER."

Most men are not content to travel the road of reason to a careful and safe conclusion, even at a railroad speed, but they go it with a jump. This jumping at conclusions—hit or miss—right or wrong —is quite an easy, if not a very profitable operation. It is altogether different from the old and slow process, and is characteristic of this "go ahead," steam and lightning age. Perhaps to no department of science is this system so generally applied, and the practice of thousands so seriously affected, as to Agriculture and Horticulture.

A farmer, during the prevalence of "*potato rot*" plants a "patch" early, and digs them early—they happen, from some cause or other, to be sound, and he concludes at once that it was prevented by early planting and digging, and he of course has discovered "*a remedy for the potato rot.*" Another discovers a worm in the tops, and he proclaims to his neighbors and the world, that he has found out "*the cause of the potato rot.*"

I have often searched for worms or insects in the haulms of rotting potatoes without being able to discover any. For the purpose of testing the matter a little, the two last seasons, I planted potatoes on the *fourth of July*, and dug them on *election day*, the first Tuesday after the first Monday in November, and found them as little rotted as the same sorts, on the same soil, that were planted the 1st of April and dug early in September. Still, I am far from jumping at the conclusion that there is no advantage in early planting.

The farmer or the horticulturist examines the "*knots*" on the branches of his plum trees; he detects an insect, and immediately proclaims that "*the black gum on plum trees is caused by an insect*"— not waiting to examine very closely whether the insect was really the cause of the evil, or whether the diseased state of the branch merely furnished it a congenial home.

One of your correspondents last month took quite a jump into the turf, when he discovered that "*permiting the grass to grow around the roots of pear trees will prevent the fire-blight*"—because trees thus treated, or ill-treated, have not been subject to the blight this season: forgetting that the blight has done but little injury the present year, in this section of country. And even in previous seasons many trees and plantations of trees, under a high state of culture, escaped uninjured, while others in the immediate neighborhood fell a prey to the blight. On examining my young pear trees, about twenty in number, after reading the communication referred to, I found that the only one affected by blight was the last one in the row; and the one most completely surrounded with "turf." That tree, however, may have been predisposed to the disease; or its position may have had some influence in favoring the attack.

I once knew a man who declared that soot put around the roots of foreign grapes subject to *mildew*, was a sure preventive—because he happened to throw the soot from his stove-pipe around a young vine, which that season produced a crop of fine fruit. The next year, and ever after, the mildew destroyed the entire crop in spite of the soot.

I might enlarge and show the injury thus done to the cause of Agriculture and Horticulture; but a word to the wise will suffice for the present. J. V. —*Monroe Co., N. Y., Oct.*, 1849.

TRIAL OF PLOWS.

The following Report of the Judges on the Trial of Plows near Geneva, in August last, contains facts and suggestions worthy of particular attention. It will be read with interest by farmers and plow manufacturers generally—and we trust its publication will induce similar trials in this and other sections of the country. We are indebted to John Delafield, Esq., President of the Seneca Co. Agricultural Society, for the Report:—

To the President and Members of the Seneca County Agricultural Society:

Gentlemen:—When we received the notice of our appointment, to act as Judges at "*The Trial of Plows,*" in Seneca County, we felt in common with our farming community, the importance of the movement, and the benefit to arise from a careful and judicious accomplishment of the purpose.

As practical farmers, accustomed to the Plow and its use, we feel justified in presenting a few remarks, in connection with the matter before us, for the consideration of the farmers, and the mechanics who are disposed to aid us in the proper arrangement of of the implements we need in our vocation, and more especially the indispensable and important instrument, the Plow. We think it has been long evident that caprice and accidental circumstances, have given rise to a large catalogue of Plows, which, upon trial, have disappointed the hopes, and wasted the means of the purchaser: of this class of plows, few perhaps have been constructed by makers, having a knowledge of the *use* of the implement, and but little of the skill or science necessary for the construction of a *good* plow.

There seems to be another error, also, quite prevalent among plow-makers generally—too often adopted by our farmers, boding evil to our agricultural success, or at least, to a thorough and proper tillage of the soil. We allude to the frequent attempts to produce plows, which shall, by turning broad furrows, work over two acres per day—*gaining* time at the *expense* of the necessary breaking up, and essential pulverizing of the soil. Thus farmers are tempted with plows, to turn furrow slices of 14 to 16 inches in width, while the depth rarely exceeds 6½ inches. We will not deny that circumstances *may* exist when a broad furrow of 12 inches and more in width, *may* be useful; but, as a general principle, greater *depth* with pulverization, should be the main object of the plow-maker; the second effort being to overcome resistance with the least power.

We feel strong in the opinion, that large masses of soil turned over in furrows of fourteen inches wide, by six inches deep, must require a large outlay of subsequent labor, to render the soil friable, and in fit condition to receive manure in a well mixed state. Neither will the land so treated be in a state to afford thorough nourishment to the seed deposited, from the manures intended for it. The gain of time, therefore, in rapid plowing by broad furrows, may be, and oftimes is, an expensive system.

Another error in the manufacture of Plows, from which, as practical farmers we are called upon to suffer inconvenience, is, the imperfect line of draft presented to our teams, not only because this line is not preserved at right angles with the shoulders of our horses, but also because of the arrangement of the beam as attached to the iron frame of the plow body. In this latter arrangement much difficulty appears to exist, and fancy has too much sway. The obliquity of the beam to the line of the landside may be necessary in some degree, to produce a direct line of draft from the true point of resistance; but, as practical men, we have reason to object to the too frequent need of shifting our guide bolts, and the use of other expedients to accommodate the erroneous line of draft adopted by the makers. We feel well assured that our agricultural mechanics are abundantly skillful, and possess sufficient science to correct this inconvenience, when brought to their notice.

When we consider the object or intent of the plow, we arrive at the fact that it is to perform in the hands of the farmer the same operation, and produce the same effects as the spade in the hands of the gardener; that is, to turn over and *thoroughly pulverize* or break up the soil. Now the man and his spade, acting together, is a most complex and perfect tool, but the time is yet to come when a simple machine shall be produced, to accomplish with equal excellence the same results as the man and the spade. We may not doubt, however, from the vast improvements of late years, that such machine will in time be constructed; the talent and science of our agricultural mechanics fully justify such expectations, and the rapidly increasing attention of farmers to the study of their vocation, will act as a stimulus to the inventor, and a check upon his visionary attempts.

With these prefatory remarks we now present a report of facts, connected with the trial of Plows—facts which offer to every man of thought and observation, much matter of reflection. On the morning of Thursday, the 30th of August, 1849, we reached the ground selected for the trial of plows. The field presented a generally uniform appearance, gently sloping from east to west; the soil was a clay loam, rather tenacious, as is most of the wheat land of the fertile county of Seneca. The sod was of Timothy, with a mixture of clover, and had not been plowed for several years. It should here be mentioned and remembered that, since the month of May last, but little rain had fallen in this section of country, which was made manifest by reference to a meteorological table, as well as by the condition of the soil. Nevertheless, as the soil was uniform in its nature, so the resistance offered was relatively the same to each plow, and the trial was alike to all, and under like circumstances.

A stationary power had been well placed, midway between the eastern and western extremes of a plat of ground, 150 feet long; a traveller or guide was prepared to bear and direct the rope, in order that each Plow might be directed with precision. Furrows had been previously opened six inches deep; the plows were entered on the Secretary's books in numerical order, and called to the trial in the same order. A substantial dynamometer was placed in our hands, with a certificate from the proper officer, that the same had been tested and proved by the State standard and was correct, indicating power as high as one thousand pounds. An extent of ground was carefully surveyed and marked into spaces of 30 by 300 feet, for the purpose of exhibiting the manner in which each plow could perform the work required.

With these and other arrangements our duties were comparatively easy, and no haste or hurry was permitted. We continued our labors through two successive days, strengthened by the hope and belief that we were entering upon a system which, if continued, from year to year, would in due time work a large and positive benefit. The following table gives a full and particular statement of the trials—classifying the implements in order, from the lesser to the greater power required to overcome the resistance offered.

BY STATIONARY POWER.

Depth of Furrow, 6 *Inches—Width of Furrow,* 12 *Inches.*

1.	Burrall's Wheel Plow, No. 2,	290 lbs.
2.	Burrall's Wheel Plow, No. 3,	295
3.	Lamport Iron Beam, from Ovid,	340
4.	Burrall's Wheel Plow, No. 4,	345
5.	Penn Yan Plow.	355
6.	Burrall's Wheel Plow, No. 5,	356
7.	Buck Eye, Iron Beam,	372
8.	Crane Plow, with Cutter,	415
9.	Burrall's Landside,	427
10.	Dundee Plow,	441
11.	Burrall's Landside, No. 5,	485
12.	Crane Plow, with Coulter,	493
13.	Waterloo, [withdrawn.]	
14.	Pastern, [not regularly entered.]	

BY HORSE POWER.

Depth of Furrow, 7 *Inches—Width of Furrow,* 13 *Inches.*

1.	Burrall's Wheel Plow, No. 3,	489 lbs.
2.	Penn Yan Plow,	493
3.	Burrall's Wheel Plow, No. 5,	511
4.	Burrall's Wheel Plow, No. 4,	519
5.	Lamport Iron Beam, from Ovid,	520
6.	Dundee Plow,	520½
7.	Burrall's Landside, No. 2,	524
8.	Crane Plow	533
9.	Burrall's Landside, No. 5,	673

The trial by horses having been made on the second day, several owners of plows entered did not appear in time

The plowing performed by the several implements was good and uniform, evidencing much skill on the part of the plowmen. Understanding that the chief object of of the trial was to ascertain the true and reliable estimate of the *power* necessary for good work, we do not deem it necessary to particularise the work of any one plow; all were good, and the facts set forth in the above table will enable every man to draw right conclusions and safe estimates. Among other facts presented to our notice were two frames of the Sheel-wheel Plow, which had been used for several years. They were worn through the mould-boards, and the wheel had yielded on its margin, being the substitute for a landside; on examination, the journals, or points of the axle of the wheels were sound and perfect.

Having witnessed the excitement among men of science, as well as among a large assembly of practical farmers, convened on this occasion, we respectfully urge upon the farmers of this State, and upon agricultural mechanics, frequent meetings and interviews upon the plan of, and with similar objects to, this meeting in Seneca County. The true interests of both will be substantially promoted, and science will be more kindly courted, to deepen our furrows, to pulverize our soils, and thus add to our general prosperity.

B. B. Kirtland, Rensselaer Co.,
Elias Cost, Oaks Corners, Ont. Co.,
John Mallory, Penn Yan, Yates Co.,
Judges of the Trial of Plows.
Saturday, Sept. 1, 1849.

* * *

The cultivation of the soil, in a free country, is the highest and noblest profession in which man can be engaged—as it is the foundation of all true wealth.

HEMLOCK, HEMLOCK SOIL, AND TAN AS MANURE.

BY CEPHAS.

Hemlock seems to be associated, in describing localities, with such other qualifiers as would give to the novice or stranger the notion, that in its natural state it has neither its due proportion of light or heat, or that it is usually found where nature cuts her loveliest pranks. We also associate with it the idea of sterility, barrenness, and of desolate swamps. But in all this we mistake and far underrate one of Heaven's gifts, and one of earth's ornaments. Go if you please where wild nature defies competition in romantic scenery, and you will find it. In the park it is indispensable, and for the ornamental hedge its bright evergreen leaves cannot be surpassed. Its timber is excellent feed for the iron horse, its lumber is valuable for the builder, the bark for the tanner—as are also the bark, gum, oil and bough for the physician.

But can we speak thus favorably of the hemlock soil? I think if we look to the pioneer for an answer, it will be a prompt and decided NO. It seems to be rather an uphill business to commence making a farm of land covered with hemlock. It is not unfrequently the case, that the pioneer, after taking a hemlock sweat of ten or twelve years, gets discouraged, or gets the *western fever,* sells out at a loss, and goes west. His successor, having come from the worn out lands of the east, takes hold with high hopes, and is determined to prove to the world that he has made a good bargain. His first crop is not first rate, the second is better, the third is still an improvement, and in a few years we find his name is registered among the competitors for premium crops. Although this is but a fancy sketch, yet is a true picture of thousands of cases in our country. Hemlock muck, as is illustrated in the tanning process, by its miserly astringency, absorbs and holds the *geine* of the soil, *(which is the nutriment of the plant,)* for at least ten or fifteen years; after which hemlock land may be considered good. Now it seems to me to be a great while to wait; and if any of your scientific writers will tell us of a shorter way to come at the availability of hemlock soil they will do a great public favor.

In the last number of the Farmer, page 244, on the culture of the plum, spent *tan-bark* is highly recommended for mulching. In Cole's American Fruit Book, page 224, Messrs. A. D. Williams & Son, of Roxbury, Mass., are quoted as having made very successful use of spent tan-bark in invigorating old and decaying cherry trees and improving young ones. Although the application was a decided benefit to the cherry trees, yet the writer gives us a caution, and recommends experiments on a small scale, on account of the injurious effects of tan on vegetation. I think if the tan is *thoroughly saturated* with animal matter there will be no risk; but on the contrary, would be a slow but valuable manure. And as hinted above in reference to hemlock soils, if some application could be made to hasten the decay of tan, it might be found to be a valuable manure. *Hinmanville, N. Y., Oct.,* 1849.

* * *

It should be a fixed principle never to suffer the soil to deteriorate; for, as it costs as much to cultivate a soil producing only half a crop as a full one, it is perfectly clear that it is the interest of the cultivator to keep his land always in a good state.

N. Y. State Agricultural Society.

PREMIUMS AWARDED AT THE N. Y. STATE FAIR,

Held at Syracuse, September, 1849.

[*Continued from October number, page* 233.]

FARM. IMPLEMENTS.

Best farm wagon, D. W. Seely, Carlisle. dip. and $5.
Harrow, A. H. Fitch, Liv. Co., dip. and 3.
Corn Cultivator, Jeremiah Fink, Lysander, dip. and 3.
Fanning Mill, Jacob Clapper, Fort Plain, dip. and 5.
Corn Stalk Cutter, J. C. Rich, Penfield, Mon. Co., dip. & 5.
Straw Cutter, J. C. Rich, Penfield, dip and 3.
Corn and Cob Crusher, for power, H. L. Emery, dip. & 5.
Clover Machine, Rapalje & Briggs, Rochester, dip. and 5.
Ox Cart, Paris Barber, Homer, Cort. Co., dip. and 3.
Horse Rake, R. H. Chase, Me., dip. and 2.
Ox Yoke, Gideon Hotchkis, Windsor, dip. and 2.

Carriage Harness, Moses Cherry, Utica, dip. and 3.
Saddle, B. Suit, Chenango, dip. and 2.
Dozen Axes, D. R. Barton, Rochester, medal and 2.
Churn, E. R. Dix, Vernon, Onei. Co., dip. and 2.
Cheese Press, Potter's Patent, L. Raymond, O., dip & 2.
Grain Cradle, Charles Clow, Port Byron, dip. and 2.
Six Hand Rakes, H. L. Emery, Albany, dip. and 2.
Six Hay Forks, J, Van Orman & Co., Vt., dip. and 2.
Six Grass Scythes, (Dunn's,) H. C. White, Agent, Mohawk, dip. and 2.
Six Cradle Scythes, Rapalje & Briggs, dip. and 2.
Six Manure Forks, (Patridge's,) Rapalje & Briggs, dip & 2.
Hay Rigging, J. M. Ranson, Onon. Co., dip. and 2.
Six dozen Corn Brooms, G. W. J. Brownson, dip. and 2.
Saddle exhibited, of superior finish and workmanship, R. T. Norgrove, Syracuse, silver medal and diploma.
1½ dozen [Patridge's] Potato Hooks, Rapalje & Briggs, dip.
Refrigerator, Rapalje & Briggs. Transactions.
Horticultural Tool Chest and Tools, Rapalje & Briggs, dip.
Wooden Scoop, Rapalje & Briggs, Trans.
Six Ox Bows, do. do. Trans.
Three Clark's C S Hoes, H. H. Babcock, Otsego Co., dip.
Fence Cap Auger, J. P. Hitchcock, Cort. Co., dip.
Sausage Meat Cutter, Burdick & Cushing, Glen's Falls, dip.
Corn and Cob Crusher, Butterfield & Greenman, Utica. dip.

Horse Power for general purposes, L. B. Benton, Penn Yan, dip. and 5.
Iron Horse Power, H. E. Smith Fowlerville, dip.
Threshing Machine, B. G. H. Hathaway, Starkey, Yates Co., dip. & 10.
Seed and Corn Planter, for hand or horse power, [H. L. Emery's] Rapalje & Briggs, dip. and 3.
Corn Planter, [Bachelder's] Rapalje & Briggs, dip.
Wheat Drill, Aaron Palmer, Brockport, dip.
Wheat Drill [combining a new principle,] D. W. Yeoman, Cairo, Greene Co., dip.
Grain Drill, with apparatus for manure, P. Seymour, East Bloomfield, dip.
Grain Drill and Corn Planter, of high merit, J. Atkins, Brockport. dip.
Broad Cast Sower, Silas S. Sage, Windsor, dip.
Wheat Cultivator, D. B. Rodgers, Seneca Falls, dip.
Portable Saw Mill, H. L. Emery, dip.
Corn Shellers, horse power, [Smith's] H. L. Emery, dip.
Corn Sheller, hand power, D. W. Harris, Yorkshire, dip.
Southern Corn Sheller, Rapalje & Briggs, dip.
Vegetable Cutter, Ruggles, Nourse & Mason, Boston, presented by Emery and Rapalje & Briggs, dip.
Best and most numerous collection of Agricultural Implements, Rapalje & Briggs, dip. and 20.
Best and most numerous collection of agricultural implements manufactured in the State by exhibitor, E. J. Burrell, Geneva, dip. and 20.
The collection of implements by H. L. Emery, though not the most numerous, are recommended to the Society as worthy of special notice for their excellent quality and superior finish, dip.
Horse Power of G. S. Barber, Lyons, entitled to special notice.
Best Grain Reaper for general purposes, E. J. Burrell, dip.
C. H. M'Cormick's Virginia Reaper, very highly recommended for large farmers, dip.
Ketchum's Mowing Machine, [having received the first premium before] certificate.

PLOWING MATCH.

1st Premium, E. Davis, Watertown, $10; 2d, W. G. Brainerd, Rome, 8; 3d, Samuel Phillips, Onondaga, 5; 4th, H. D. Preston, Elbridge, trans.

Transactions were also awarded to the following competitors:—Samuel Lyderman, Geneva; Enoch Marks, Fairmont; O. Howland, Cayuga; Thomas Miller, Homer; J. F. Mosbor, Clay; Wm. Miller, Onondaga; Robert Taylor, Skaneateles; Thomas Mix, Auburn; N. Kniffin, Scipio; John Baker, Parish; J. Potter, Onondaga Hill; I. T. Hill, Lenox; Wm. Heming, Onondaga; John Morris Onondaga.

BUTTER.

Best lot from 5 cows in 30 successive days, Nelson Van Ness, Mayville, Chau. Co., $25.
2d, John Holbert, Chemung, 15.
Best 25 lbs. made in June, John Shattuck, Norwich, 10.
2d, John F. Clark, Onondaga, 5.
3d, Abram Adams, Preble, Cort. Co., trans.
Best 50 lbs. made at any time, Horace Clapp, Turin, 15.
2d, John Holbert, Chemung, 10.
3d, John Shattuck, Norwich, 5.
4th, Noah Hitchcock, jr., Homer, Cort. Co., trans.

Girls under twenty-one years of age.

Best, Miss Bardwell, [14 years of age,] Otisco, silver cup.
2d, Miss Susannah Van Ness, [13 years of age,] Mayville, Chau. Co., pair of silver butter knives.
3d, Miss M. E. Hopkins, Cortlandville, set tea spoons.

CHEESE.

Cheese one year old and over.—A lot of Cheese designed for exhibitionn under this head was shipped from Buffalo and taken to Albany, and was not returned before the close of the Fair: belonged to George A. Moore, of Buffalo.

Less than one year old.—Best 100 lbs. R. D. Brown, Fairfield, $15. 2d, P. Carter, Lysander, 10. 3d, Samuel Mathews, Litchfield, 5. 4th, James P. Hitchcock, Truxton, trans.

Dolph & Barber, Richmond, Ashtabula Co., Ohio, sample of "English Dairy," Cheese; 12 cheese, very fine, calculated for warm climates, from 800 cows, dip.

SUGAR.

Best 25 lbs., Peter Mitchell, Meredith, Delaware, $10. 2d, Charlas W. Taylor, Cortland Co., 5. 3d, Luman Shepard, Skaneateles, Onondaga Co., 3. 4th, E. R. Dix, Vernon, Onondaga Co., trans.

HONEY.

Best 20 lbs, of honey, Aaron Goodwin, Brownville, $5.

BEE-HIVES.

Dugdall's Patent Moth Proof Bee Hive, Thomas McClintock, dip.

SILK.

Best Reeled Silk, [name not ascertained,] dip. and $5. 2d, N. M. Coburn, Stockbridge, Madison Co., 3.
Best Sewing Silk, Jeffery Hutchinson, Riverhead, L. I., 8. 2d, Parmelia Staats, Buffalo, 5. 3d, N. M. Coburn, Stockbridge, trans.
Cocoons, but one lot exhibited, and not of sufficient merit to receive a premium.

FLOWERS.

Professional List.—Greatest variety, &c., of flowers, James Wilson, Albany, $5. Of Dahlias, same, 5.
Best 24 Dissimilar Blooms, Wm. Newcomb. Pittstown, 3.
Greatest variety of Roses, Ellwanger & Barry, 5.
Best 24 Dissimilar Blooms, James Wilson, 3.
10 varieties of Phloxes, Ellwanger & Barry, Rochester, 3.
Seedling Phlox, James Wilson, 2.
Greatest variety of Verbenas, J. Wilson, 3.
Best 12 varieties of Verbenas, Ellwanger & Barry, 2.
Seedling Verbena, J. Wilson, 2.
Collection of German Asters, Wm. Newcomb, 2.
and greatest variety of Pansies, Ellwanger & Barry, 3.
Amateur List.—Greatest variety of flowers, Mrs. E. T. Martin, Willow Brook, silver medal. Of Dahlias, M. Wells, Jamaica, silver medal.
Best 12 dissimilar blooms, Mrs. W. Newcomb, 3.
Greatest variety of Roses, Mrs. E. B. Morgan, Aurora, med.
Best 12 Dissimilar Blooms, Mrs. David Thomas, 3.
6 varieties of Phloxes, Mrs. E. T. T. Martin, 3.
Greatest variety of Verbenas, do. 3.
Best Seedling Verbena, Mrs. Prof. Jackson, Schenectady, 2.
12 varieties of Verbenas, Miss L. G. Whitney, Rochester, 2.
Collection German Asters, A. Le Cotelaux, Buffalo, 2.

and greatest variety Pansies. Dr. A. Thompson, Aurora, 3.
12 varietses Pansies, Dr. H. Wendell, Albany, 2.
General List open to all competitors.—Best collection of Green House Plants, Ellwanger & Barry. silver medal.
Best Floral Design, Mrs. C. B. Sedgwick, Syracuse, medal. 2d, Mrs. W. Newcomb, 3.
Best Floral Ornament, Mrs. Prof. Jackson, silver medal. 2d, Mrs. E. T. T. Martin, 3.
Best Hand Boquet, flat, James Wilson, Albany, 3. 2d, Herman Wendell, 2.
Best Hand Boquet, round, J. Wilson, 3. 2d, Mrs. White, 2.
Best Basket Boquet, with handle, Dr. A. Thompson, 3.
For the most beautifully arranged Basket of Flowers, Dr. H. Wendell, Albany, dip.
To Aurora Horticultural Society for best exhibition, Hovey's Colored Fruits.

FRUIT.

Apples.—Greatest and best variety, Benjamin Hodge, Buffalo, Dip. and Hovey's Colored Fruits. 2d, A. Bryant, Buffalo, $5.

Best 12 varieties table apples, B. Hodge, 5. 2d, A. Bryant, trans. and 2.

Best 6 winter apples, B. Hodge, 3. 2d, A. Bryant, trans. and 2.

Pears.—Greatest number of varieties of good pears, John Morse, Cayuga Bridge, Dip. and Hovey's Colored Fruits. 2d, B. Hodge, 5. 3d, J. W. P. Allen, Oswego, trans.

Best collection of first-rate autumn pears, John Morse, dip. and 5. 2d, J. W. P. Allen, trans. and 2.

Best collection of newly introduced pears, Dr. H. Wendell, Dip. and Hovey's Colored Fruits.

Peaches.—Best 12 varietiss, John Morse, dip. and 5. 2d, J. M. Whitney, 2.

Best 6 varieties, Ellwanger & Barry, 3. 2d, H. G. Dickinson, Lyons, 2.

Best 12 Peaches, B. R. Norton, Syracuse, [Crawford's Early,] 2. 2d, Abram Vail, Waterloo. trans.

Plums.—Best collection 31 varieties, Dr. H. Wendell, dip. and 5. 2d, fifty varieties, Isaac Dennison, Albany, 3.

Best 6 var. Ellwanger & Barry, 3. 2d, C. S. Wilson, 2.

Best 12 plums, choice varieties, R. Woolworth, Syracuse, 2. 2d, H. G. Dickinson, trans.

Nectarines.—Best and greatest number, John C. Hastings, Clinton, Oneida Co., 3.

Grapes.—Best and most extensive varieties native grapes grown in open air; John C. Hastings, Clinton, 5. 2d, Daniel Ayers, Amsterdam, 2. ,

Best three varieties grown under glass, W. R. Coppock, Buffalo, 5. 2d, John C. Hastings, Clinton, 2.

Best dish of native grapes, (Isabella,) Rufus Cossett, Onondaga, trans.

Disc. Best grown and matured specimens. [Muscat and Black Hamburg,] ——— Downing's and Am. Fruit Cult.

Three specimens of grapes, Joseph E. Bloomfield, Mexico, Oswego co., American Fruit Culturist.

Two bottles of white and red champaigne wine, B. Poppe, Syracuse, Downing.

Specimen of port wine from native grapes, Charles A. Peabody, Columbus, Georgia, diploma.

Melons.—Best specimens of water melons, H. N. Langworthy, Rochester, $3.

Best specimens musk-melons, H. N. Langworthy, 3.

Quinces.—Best 12 Quinces, Ellwanger & Barry, 3. 2d, Lewis Eaton, Buffalo, 2.

FOREIGN FRUITS.

Apples.—Best exhibition of apples, E. Harkness, Peoria, Ill., Dip. and Trans. 2d, James Dougall, Amherstburgh, C. W., American Fruit Culturist.

Pears.—Best exhibition, F. R. Elliott, Cleveland, Ohio, dip. and trans. 2d, James Dougall. C. W., Am. Fruit Cult.

Grapes.—Best exhibition, James Dougall, dip. and trans.

Disc., Dr. J. A. Kennicott, Elm Grove, Ill., for a fine exhibition of western apples, Downing's Fruits.
Mr. Overman, Canton, Illinois, for a fine display of apples, Downing's Fruits. And same for an exhibition of pears, American Fruit Culturist.
F. R. Elliott, Ohio, fine display new western apples, F. Cul.
J. Gallup, Cleveland, fine exhibition fruit, Downing.
J. C. Holmes, Detroit, Mich., fine exhibition of apples, Am. Fruit Culturist.

A full list of the varieties exhibited will be given hereafter.

VEGETABLES.

Best 12 carrots, C. F. Crosman, Rochester, $3.
12 table beets, do. 2.
12 onions, N. Culver, Arcadia, Wayne co., 3.
12 Tomatoes, C. F. Crosman, 3.
3 heads of cabbage, N. Culver, 3.
12 sweet potatoes, do. 3.
2 purple egg plants, C. F. Crosman, 3.
half peck Lima beans, Jason W. Seward, Rochester, 3.
bunch double parsley, C, F. Crosman, 3.
three squashes, do. 3.
Largest pumpkin, H. N. Langworthy, Rochester, 3.
Best 12 ears of seed corn, N. Culver, 3.
seedling potato, Hamilton Morrison, Montgomery, 3.
and greatest variety of vegetables raised by exhibitor, C. F. Crosman, 5.
Disc., half peck Lima beans, J. P. Fogg, Rochester, 3.
Three squashes, Lewis Eaton, Buffalo, 2.
do. C. F. Crosman, 2.
Large pumpkin, N. Culver, 2.
Sweet corn, C. F. Crosman, 2.
Table potatoes, Richard Cheney Syracuse. 2.
Seedling potatoes, Luman Shepard, Skaneateles, 3.

GRAIN, FLOUR AND WOOL.

Best sample of winter wheat, one barrel, (white Bluestem,) Timothy Judson, Portland, Chau. co., $5.
Second, Hamilton Murray, Oswego, 3.
Best sample oats, one barrel, E. R. Dix, Vernon, 5.
Best barrel flour. Oviatt & Stone, Rochester, diploma.
Second, Wm. H. Hanford, Honeoye Falls, transactions.
Best fleece fine wool, J. G. Strean, Washington, Pa., dip.
John Holbert, Chemung, two butter firkins, dip. & trans.

[We omit non-enumerated articles, and fancy and needle work, &c., for want of space.—Ed.]

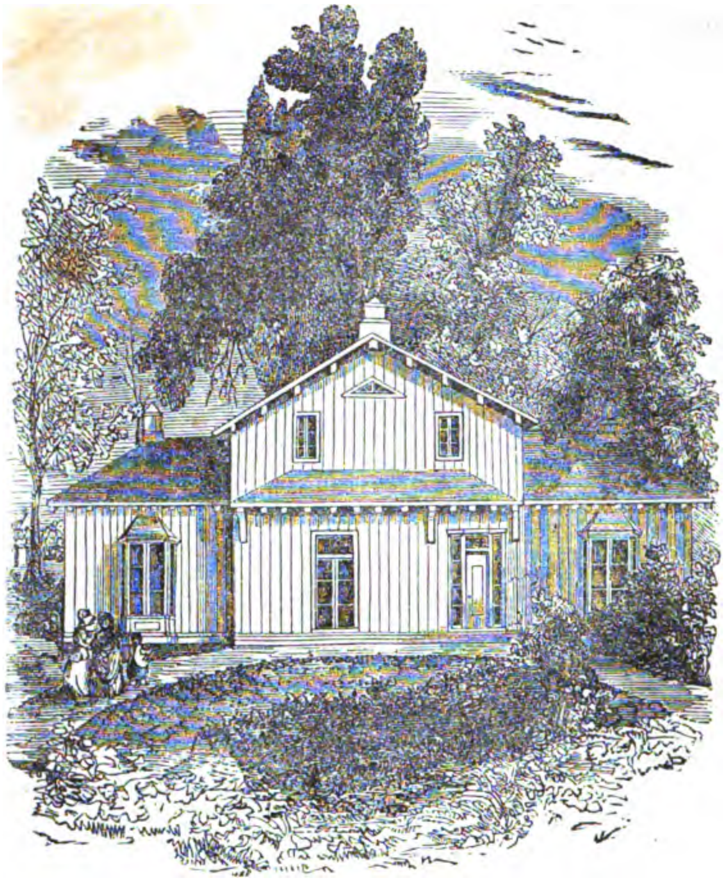
☞ It is not improbable that inaccuracies have occurred in the names of persons in the foregoing list, which has been copied from entries in the Secretary's books. It is requested that all errors discovered be reported to the Secretary of the Society without delay, that they may be corrected before the final publication of the awards in the Transactions of the Society.

All information in relation to premiums may be obtained from the Secretary, who will give prompt attention to all inquiries.

B. P. JOHNSON,
Ag. Rooms, Sept., 1849. *Secretary.*

OXEN Vs. HORSES.

Edward Stabler, Esq., of Montgomery county, Maryland, writes to the editor of the *Plow, Loom and Anvil*, that in 1822 or '23 he commenced the substitution of oxen for horses on his farm. He began in midsummer to break up a field for wheat. For a day or two the oxen suffered greatly with the heat, in the middle of the day, but by rising early, and resting two or three hours at noon, and feeding on dry food, he was able to plow nearly as much with a yoke of oxen as with a pair of horses, and the work was quite as well done. The horses consumed about one bushel of grain per day and the oxen none. He found the result, after a thorough trial, so much in favor of oxen, that he has ever since continued their use. For many years there was not a furrow plowed on his farm except by oxen. He observes that oxen, if properly broken, quite as readily, if not more so, take to and keep the furrow, as horses. His rule is to keep two yoke of oxen on the farm to one pair of horses. He well remarks, that—"to judge of the capabilities of the ox, by the badly-used, houseless, over-tasked, and half-fed animals we sometimes see in the yoke, is doing him great injustice. Treat the horse in the same unfeeling manner, and where would be his high mettle and noble spirit? He would speedily arrive at a premature old age, valuless to his owner, and a cast-off to feed the carrion crows. That the ox can better stand this harsh usage, is certainly no valid or sufficient reason, that he should be subjected to it. Use him with equal care and humanity, and he will just as certainly, and with more profit, repay it to his owner."—*Cultivator.*



DESIGN FOR A FARM OR COUNTRY HOUSE—WITH GROUND PLANS, ELEVATION, EXPENSE, &c.

BY F. R. ELLIOTT, OF CLEVELAND, OHIO.

In offering the accompanying plan for a cheap and commodious country house, I do not lay especial claim to originality in all particulars, although I do not know of one exactly like unto it ever having been published or built.

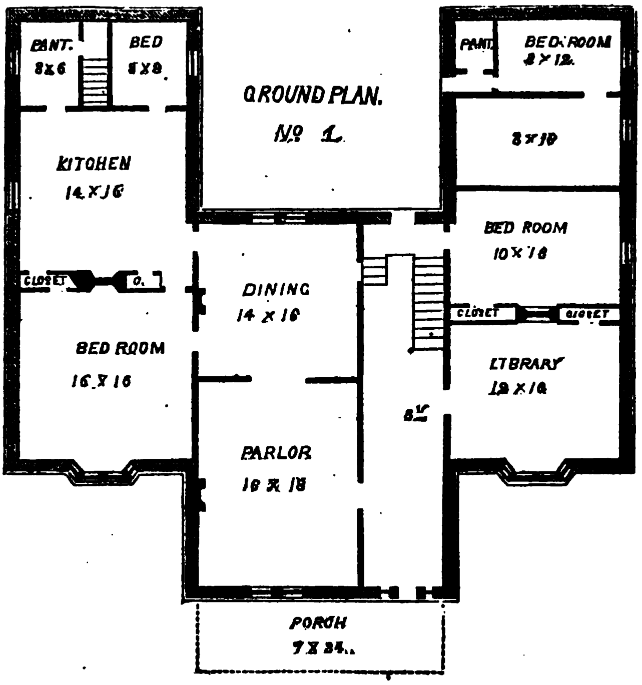
The elevation and ground plan marked No. 1, comprise the house as I myself prefer it.

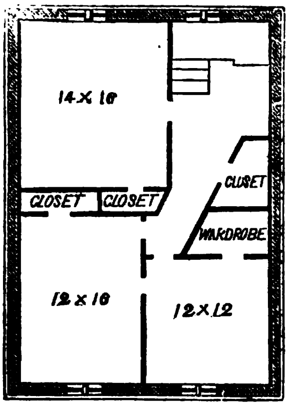
I will confine myself to the elevation and ground plan No. 1. It is particularly designed to point either north or west, and should, if possible, be placed upon a slight rise of ground from the adjoining public highway or surrounding grounds.

The value of land in the country, as compared with the disadvantages of basements for kitchens, etc., should not receive a thought; and while this plan may be said to cover a large area of ground, I trust to be able to show that it can be built for a much smaller amount of money than any plan of equal convenience, room and character yet published. A free circulation of air, connected with large and convenient rooms, are material points, and in this they may be had. The size of cellar may be according to the wishes of the builder, but my estimate and plan is for a cellar only under the wing in which is the kitchen, that being of size sufficient to hold all vegetables, &c., that will be required for the consumption of a large family. Vegetables for stock should, for easy access in feeding, as well as the injurious effects sometimes resulting from a too large quantity stowed in the house cellar, always be confined to the barn cellar.

The main house is 24 by 32 feet, with 18 feet posts, and having a porch 7 feet wide in front, supported with brackets. The wings are each 16 by 40 with 11 feet posts, and falling back 12 feet from the front of the main building. Of the first story front, the main building has a single panel door, and one large window, opening each way inside upon hinges. The wings have each an oriel or bay window, projecting one foot, and having the center lights of glass hung upon hinges, to open inside. The second story front, the two windows, like the one below, are divided by a heavy style, and open inside. The covering, as indicated in the elevation, is to be of inch pine boards that have been run through a planing machine, and cut to a width and thickness. These battened with half inch stuff three inches wide. As the lower story of the main building, as well as the wings, are all designed to be 11 feet high in the clear, it is evident that the best length of boards will be 12 feet, as they will allow of no waste.

The estimate of cost here given is for plain but good work. No mouldings, turnings or carvings, as all such only add to the labor of the housewife in





SECOND FLOOR
No 1.

keeping them clean, and are really no ornament, as taken in keeping with other articles usually accompanying the country.

The fire place in the parlor is designed to be carried to a level with the chamber floor, and then carried horizontally along the side of wall until it reaches the partition of chambers, when it may rise diagonally to the center. Some may prefer a sheet iron flue, which could, like a stove pipe, be removed from the chamber during the summer months. In the elevation No. 2 the chimney rises direct. Some may prefer that, as tending to break the uniformity, which by the way, seems among architects of the present day to be more the intention in their designs, than to give positions suited to the real wants of daily life.

That my estimates of costs are correct, I can only say that they are such as I have contracted in building this house, (plan No. 1,) and are therefore reality and not fiction or supposition.

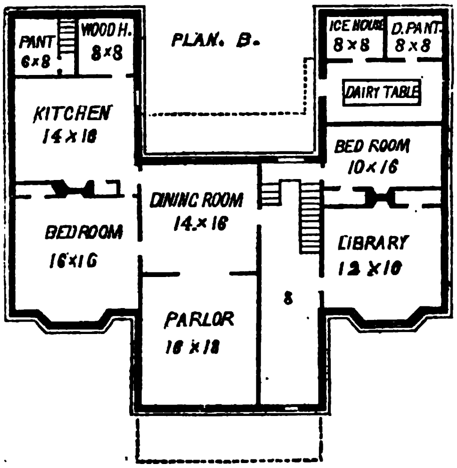
Permit me now to take you through the rooms, entering, as we should, at the main or front entrance. First, we have a hall 8 feet wide, running the entire length of the main house. From this hall, 13 feet from the rear, commence the stairs, ascending 8 feet, to a platform of 4 feet wide, where they turn, and again rise to the chambers. Upon our left, as we enter the hall, is first the parlor, 16 by 18 feet, and next adjoining it the dining room, 16 by 14. Opening from this, we have the front of wing, 16 by 16, a large bed room; and from this, as also from the dining room, are doors to kitchen, 14 by 16; a fire place in both bed room and kitchen, and connected with that in the latter, should always be built a brick oven. The dining room may be warmed by a stove, grate, or fire place, and may be carried to the chimney from the kitchen, or a hot air drum may be placed in the chamber overhead, and the heat pass that way, and so conduct on to the chimney in the center of the main house. The pantry is shown from the kitchen, the cellar stairs, and also a small room for servants; or where no servants are kept, the latter may be left for a wood house.

The conservatory or green house in rear of the dining room may or may not be constructed, as taste and means indicate; if it is, the window should be built the same as that in front. This dining room and parlor are separated by folding doors upon hinges; as not often expected to be wanted, and as costing less than when constructed to roll or slide, the latter is, of course preferable. The cellar is designed to be 7 feet deep, and the whole house to stand 18 inches from the ground.

A closet is seen by side of chimney in kitchen, the lower part of which is designed for kettles, etc., and the upper for crockery or china closet. The closet opening into the bed room I think should contain a bath tub, and be so arranged that warm or cold water could be received from the kitchen. Wardrobes, separately built, and placed each side of the bay window would be suited to the room.

Let us now go back to the hall. On the right, just at the foot of the stairs, we enter the library, 12 by 16 feet, having a fire place and a closet, as seen in the plan. In the rear of this, is again a bed room, 10 by 16, opening from the hall, and also with a fire place and closet. The rear of this I would cut off from the rest of the house by a continuous partition; and in large families, where much help is kept, a door should open from the outside into a small hall, 4 by 4, as shown, and then a bed room 8 by 12; and again two bed rooms 8 by 8. These furnish suitable rooms for farm laborers, and save the travel and dirt through the main hall, and so up stairs. The same also of the bed room for servants, in rear of kitchen. It is near their work, and no excuse can be offered to pass through any rooms, except to sweep them, &c. The bed room in rear of library is so distant from all others, and having a fire place, as to render it suited to sickness. If desired, a passage way may be made through the closet, connecting it with the library.

For large dairies, I would construct the rear rooms, heretofore mentioned for farm laborer's bed rooms, as shown in the rough plan accompanying, marked B.



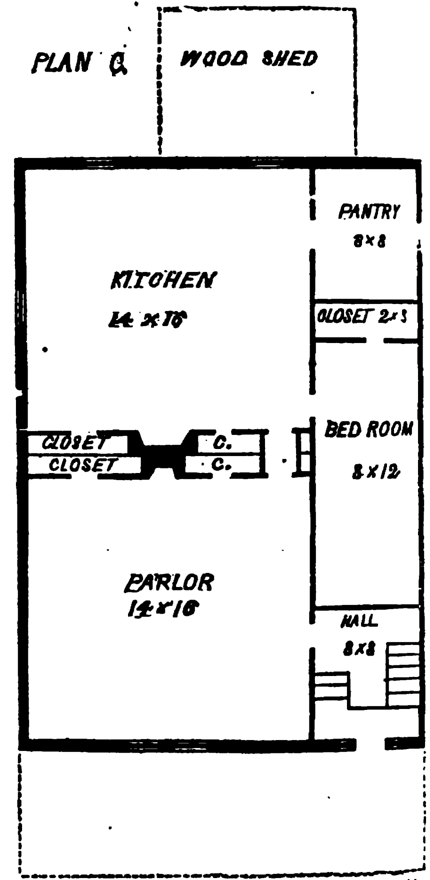
ESTIMATE OF COST.

1,000 feet hewed timber, at 2c,	$20 00
4,134 " inch pine boards planed, 10½c.,	44 65
4,100 " roof boards, at 7c.,	28 70
1,200 " ½ inch for battings,	12 60
500 " 1½ inch, second clear, at 13c.,	6 50
200 " 1½ " " say,	3 00
182 " 1½ " for water table,	1 75
21,000 shingles at $2,50,	52 50
968 feet, or 66 pieces 4 by 4 scantling, 11 feet long; 320 feet, or 24 pieces, 10 feet long; 171 feet, or 8 pieces, 16 feet long; 168 feet, 3 by 4, 14 feet long; 576 feet, or 32 pieces, 2 by 4, 18 feet long; 880 feet, or 80 pieces, 2 by 4, 11 feet long; 176 feet, or 16 pieces, 2 by 4, 11 feet long; 184 feet, 2 by 4, long as possible; 118 joists, 2 by 8, 16 feet long, 16 joists, 2 by 8, 10 feet long; 54 joists, 16 feet long; —for ceiling joists. Estimate all the scantling at	50 00
Joiner work, to frame, enclose, make sash, &c.,	200 00
Glass and putty for windows,	20 00
Nails,	15 00
Door and window swings,	10 00
	$464 70
This is exclusive of the cellar wall and under-pinning, which, with the chimneys, may be [inclusive of materials,] made for,	125 00
Flooring,	20 00
Inside joiner's work and lumber,	150 00
Lath and plastering,	200 00
	$959 70
Extras,	40 30
	$1000 00

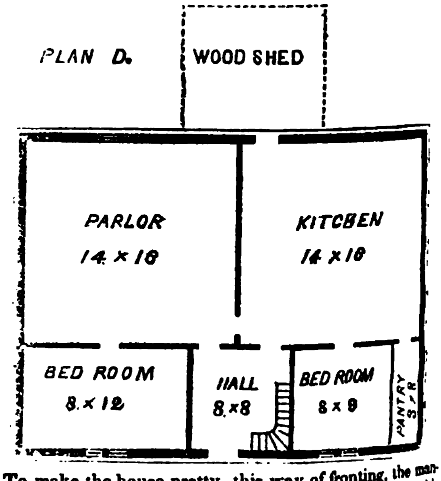
This of course does not allow for the digging of cellar or hauling of lumber;—that must be calculated according as the distance is far or near. The green house is of course extra, as that does not properly belong to the house, but is a luxury which, if the house fronts to the north, could be construeted at a small expense—say thirty dollars.

Should any person, from want of means at command, desire only to build the main house, with intention at some future day, if desirable, to add the wings, I would offer the ground plan No. C, in which the front and outward appearance of house is retained, except the wings. The stairs from hall, which will be only 8 feet square, will have two foot landings, and rise so as to bring the platform of turning directly on a level with the top of front door.

Such a house may be constructed on the plan as described, at from 5 to 600 dollars—as lumber and labor can be obtained.



Again, the entrance door, instead of being on the gable may be as in plan D. The hall being in center of house, stairs to chamber would have to be a half circle. The might be reversed, and the room now 8 by 9, made 8 by So *vice versa*, and then open the room to be 8 by 9 from hall, and use it for a library, or office, as might be requir



To make the house pretty, this way of fronting, the manner of finish would have to be more expensive, and a gable should be raised from the roof, and a window to correspond be introduced over the entrance door, or a projecting porch forming the hall might be constructed.—*Transactions N. Y. State Agricultural Society for* 1848.

DUTY OF THE AGRICULTURAL PRESS.

MR. EDITOR:—It is not my intention at this time to depreciate this truly valuable class of prints; far from it. I regard them as the leaven which is ultimately to leaven the whole farming community, and work that reform in the department of agriculture, which shall effectually tell upon the interests of the whole civilized world. But I wish to make some suggestions, (if I may be allowed to do so,) which would essentially increase their value and usefulness to the farmer.

The reader of agricultural journals will observe that the efforts of such prints are almost exclusively directed to improve the producing art, and increase to the greatest possible extent, the amount of farm products; while the art of marketing those products advantageously, (a matter of no small importance to the farmer,) receives little or no attention. To secure the first, it is true is the all-important object, but to effect the latter is sufficiently so to require more attention than it has heretofore received. Is it not the province of the agricultural press to look after all the interests connected with the pursuit of farming? Then the farmer not unreasonably asks of these journals, the necessary information in regard to the markets, present and prospective, which will enable him judiciously to dispose of his produce. The farmer may be perfectly skilled in producing, and yet fail to realize the full profits of his skill, for the simple reason that he has not the means of knowing how and when to market his produce advantageously.

Now, is it not clearly within the sphere of the agricultural press to collect and spread before the farmer correct information respecting the circumstances and causes which control the markets, that he may form an intelligent judgment in the case, and act understandingly in disposing of his produce. I am aware that it is utterly impossible to foresee all the fluctuations incident to the markets, when a spirit of wild speculation is rife; yet a correct knowledge of the causes which operate to graduate the scale of prices, uninfluenced by speculation, is attainable. It is perfectly apparent, that the supply of any particular article, as a general rule, determines the price. So when the supply is equal to the demand, we have the medium price; when the supply is greater than the demand, prices are depressed; and when there is a deficient supply, prices are proportionally high. Now the farmer wants to be informed, so far as it is possible, of the present and future supply of the articles he produces, that he may judge correctly of the value of his property. This is a general rule; but there are other things which many times greatly modify its results. There may be, for instance, a scarcity in some one article of provision, but an abundance of all the rest. Now though there may be a deficiency of this one article, a very high price will not be realized because the abundance of the rest creates the supply.. But if the deficiency in one or more is so great as to make a deficiency of the whole, then the price of each must be higher. And so it will be with all other classes of articles where one article may be substituted for another.

The comparative abundance of money also has an influence on prices. A scarcity of the circulating medium proportionably paralyzes business operations, and reduces prices, while plenty of money invites to speculation, and prices go up.

Other things might be noticed on this subject, but all I intend is to invite attention to it, and ask that while other interests of the farmer are attended to, this may not be forgotten. It may be said we have all that is practicable on this subject in the record of commercial transactions, and prices current. I think not. We want reliable information, so far as may be, of the supply on hand, and of the probable future supply, and the demand for every particular article we produce. It may be said this is asking too much, and more than is practicable. But might it not be accomplished through the aid of reliable correspondents in the farming interest, located in different parts over this country, and foreign countries which compete with us, or consume our products. W. H. —*Livingston County, N. Y.*, 1849.

REMARKS.—It is comparatively easy to state what an agricultural journal *should be*, but quite another and more difficult matter to accomplish the object.—We fear that our correspondent will have to "wait a little longer" before he can obtain a paper which will furnish all the information he desires. For obvious reasons it would be impossible to give, in a *monthly* of the dimensions of this journal, such reports of the markets, &c., as our friend suggests.—But if the farmers of Western and Central New York were willing, as they are abundantly able, to support a *weekly agricultural newspaper*, they would soon be furnished with a journal containing the most reliable intelligence of the crops and home and foreign markets—together with much other information particularly valuable and interesting to farmers, but which is not given in our agricultural monthlies nor the the political weekly papers of the day. We believe the day is not "afar off" when agricultural *newspapers* will be sustained in New York and the Western and Southern States, as they now are in New England and Europe—and when that time shall arrive, the desideratum mentioned by our correspondent will no longer exist.—ED.

* * *

TO CURE A STIFLED HORSE.—J. B. Goddard, of Norwich, Connecticut, writes to the American Agriculturist, as follows:—

Take one gallon of urine, and put therein a small handful of junk tobacco; boil down to one quart; then add two ounces of oil of spike, one ounce of oil of amber, two spoonfuls of spirits of turpentine, and two spoonfuls of honey. Put it into a jug, and cork it tight for use. Process of application: rub the stifle-bone hard with the mixture 15 or 20 minutes; then dry it in thoroughly with a red-hot fire shovel; then ride the horse forth and back one hundred yards. Repeat the above two or three times, and the cure will be effected.

* * *

BUTTER MAKING.—Those who only make a small quantity of butter, and of course do not churn every day will find the following very important: When the cream of each day is put into the jar or pot in which it is kept, let the whole be *stirred together thoroughly*. If this is not done, the cream of each day will remain in layers as it is put in, and the lower strata will become sour and bitter, and when the churning is done, will taint the whole. So says a butter maker of the class alluded to.

* * *

THE "Mameluke Wheat," noticed so favorably in some papers recently, is a humbug.

STIMULATING MANURES.—EXPERIMENTS.

BY M. S. GALLUP.

Messrs. Editors:—In nothing do we witness such a perfect recklessness and entire want of economy on the part of the tillers of the soil, as is exhibited in the waste of those substances which tend to the nutrition, or the stimulus of plants. What a vast amount of these is yearly and daily wasted, which might, by proper economy, be made subservient to the most salutary and beneficial results! Farmers are, generally, too remiss by far in the preservation of manures.

It is a matter of no ordinary moment, to preserve and apply whatever can possibly tend to increase a crop. Yet very few act upon this principle. Indeed, a great majority of our farmers neglect to attend properly to this matter, and suffer serious losses on that account. Most especially, is it too true that, by many farmers, ashes are not saved and applied to the production of vegetable substances. Some sell this valuable manure to ash-pedlars for an insignificant sum; others suffers it to remain about their premises unused. Either course exhibits a lamentable want of economy on their part.

Were our farmers aware of the value of both leached and unleached ashes as a stimulating manure, it does seem that they would not be guilty of such superlative folly as selling them for ten cents per bushel; or letting them go entierly to waste. Ashes, on most soils, and in most seasons, has not its equal in the whole catalogue of stimulants. "We speak what we know, and testify what we have seen."

During the past seson, I have made some experiments, testing the real value of ashes as a manure. For this purpose, I selected four consecutive rows of corn planted upon soil of equal fertility; and each of which received the same care and attention in tillage. To the *first* I applied *unleached ashes*—to the *second leached ashes*—to the *third*, *unleached ashes* after hoeing the first time, and to the fourth no ashes. The ashes were applied to the first two rows as soon as the spires made their appearance. Note the result:—I harvested the corn about the 2d of September, and ascertained the respective amounts as follows: from the row to which unleached ashes was applied, I obtained 32 pounds of ears of corn. From the row to which leached ashes was applied I harvested 35 pounds. From the row to which unleached ashes was aplied after hoeing the first time, I got 26 pounds. And, from that to which no ashes were applied, 24 pounds of corn.

From these experiments we deduce the following facts:—1. That *leached* ashes are more valuable as a manure than *unleached* ones. But I applied double the amount of the former. All things considered, a bushel of leached is equal to a bushel of unleached ashes. 2. That ashes is not far from being one-fourth better to be applied as soon as the spires appear than after hoeing the first time. 3. That the application of ashes at a proper season will increase a crop of corn nearly one-third. It is true we must take into consideration the counteracting influence of season, soil, and such like. The past season has been favorable to the use of this manure.

The soil, too, being a loam, interspersed with gravel, is well adapted to ashes. Upon a wet, clayey soil, or in a wet season, such results might not be obtained. But, as a general thing, the result will not vary materially from the above.

If what I have stated be correct, does it not behoove our farmers to save carefully and apply ashes to the production of corn? Is it not really worth their pains? Is it the part of wisdom to waste this valuable manure? Or, rather, is it not the part of wisdom to preserve it? Judge ye.

I have likewise applied ashes to potatoes, and find it highly beneficial. It may be advantageously applied to the raising of garden vegetables, also to pasture. Spring wheat may be materially benefitted by using ashes. It should be applied as soon as the spires appear. In this section of the country, this crop is very often injured by worms. The application of ashes, in this case, is an effectual remedy.—*Busti, Chaut. Co., N. Y., Oct.*, 1849.

Domestic Economy.

A New Kind of Cheese.—An esteemed friend, in whose *recipes* we have great confidence, has kindly furnished us with the following method for making good cheese: Boil good white potatoes, and when cold, peel and mash them till not a lump remains. To five pounds thus prepared add a pint and a half of sour milk, and as much salt as may be deemed necessary to season the mass. Having worked it well, let it be covered, from two to four days according to the state of the weather; then work again, make the cheese the size you like and then let them dry in the shade. After they have become sufficiently dry, place them in pots or pans, and let them remain a fortnight or more. In this way cheese of a most excellent quality may be made and what is of no small consequence, it can be kept for years without the slightest deterioration from the effects of age, provided it can be kept dry. A friend who has had the pleasure of eating cheese prepared in this manner, speaks of it in the highest terms.—*Maine Farmer.*

Savoy or Sponge Cake.—Take twelve fresh eggs, put them in the scale, and balance them with sugar; take out half and balance the other half with flour; separate the whites from the yolks, whip them up very light, then mix them, and sift in, first sugar, then flour, until both are exhausted: add some grated lemon peel; bake them in paper cases, or little tin moulds. This also makes an excellent pudding, with butter, sugar, and wine for sauce.

A Substitute for Tea.—Dr. Graham, an old and experienced physician in London, says—"I may state, on very respectable authority, that the first leaves of whortleberry, properly gathered and dried in the shade, cannot be distinguished from the real China teas."

Cleansing Paint.—The best thing for cleansing oil paint is a sponge dipped in Ammonia which has been copiously diluted in water. Soap dissolves the turpentine as well as the linseed oil, and not only destroys the smooth and shiny surface, but exposes also the lead to the influence of the water and air, and is, therefore, not practicable.

Shrinking of Flannel.—Enclose new flannel in a bag; put it into a boiler with cold water; heat and boil it. It will never shrink any more after this operation, and should then be made up into garments.

To learn, willingly and promptly to do whatever is right, simply because it is so, is a great acquisition.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

THE CONVENTION OF FRUIT GROWERS.

This body assembled in New York on the 2d of October, and held a session of two days. The attendance was not quite so large as last year, but was made up of men well informed on the subject, from many parts of the Union. The collection of fruits was much larger and better than we had reason to anticipate, but still greatly behind that of last year. The subject of a union between this body and the "North American 'Pomological Convention," was brought forward at an early stage of the proceedings, and after a conference between committees from each, it was unanimously resolved that the Associations be united under the name of the *American Pomological Congress*—that the first meeting be held at Cincinnati, in 1850, and that the meetings afterwards be held biennially—Philadelphia being designated for 1852.

The chairman of the General Fruit Committee reported a long list of rejected fruits, besides a list of varieties for general cultivation. We intended to give this list in the present number, but have not been able to get it in a complete form. We shall give it in our next, with further remarks on the doings of the Convention. The proceedings were marked throughout with regularity and harmony, and now that this Congress is so well organized, it cannot fail to render great service to the country in this important branch of culture.

PEACH CULTURE.

The peach crop through many parts of New Jersey and Delaware has been very good the past season. We saw it stated in the Journal of Commerce, some time in September, that 15,000 baskets were brought in one week, by one steamer alone, from New Brunswick, and an equal number by others; and in one day 3474 baskets at an average price 70 cents per basket. Many of the farmers have netted from one to $2,000. In the last of September, when we were in New York and Philadelphia, a basket of about three pecks of *Heath's Cling*, or *Crawford's Late Melocoton*, could not be bought from the market dealers for less than $4. Fine late peaches were both scarce and dear in our markets, and our cultivators would do well to turn some attention to this point. At present few, except early varieties, are grown to any extent.

In answer to inquiries from a Staten Island correspondent, on this subject, the editor of the Horticulturist says:—

"The choicest late peaches for profitable market culture are the following: Morris White, Crawford's Late, Heath Cling, Druid Hill, Snow Peach, Old Mixon Freestone, La Grange, and Ward's Late Free. In planting an orchard of 2000 trees in your neighborhood, we should choose the above in about equal proportions, giving the preference to Morris White and Crawford's Late, as the most uniformly productive. Sixteen or eighteen feet apart each way, is the usual distance; but you may plant them twelve feet, if you keep them low and bushy, and shorten-in the tops every year, by which means you will have the finest fruit. Above all, be careful to get trees of healthy constitution, free from all hereditary suspicion of the *yellows*. The size and quality of your fruit depends almost wholly on the *depth* and goodness of your soil."

ANSWERS TO CORRESPONDENTS.

We have several matters of this kind on hand, that ought to have been attended to this month, but we have been so much from home and so much engaged when at home, that we have found it really impossible to give them proper attention. Several communications are on hand also, and will receive attention next month.

Wintering Verbenas, Carnations, Salvias and other Tender Plants.—(F. K. P., Wisconsin.) Where there is no green-house, a *cold frame* will answer the purpose. Take a common hot bed frame—dig a pit two to three feet deep, in a perfectly dry soil, and set the frame in it and fill in the earth around perfectly close, and put some manure around to exclude the frost; have the sashes to fit closely, and cover all with leaves, pine branches, &c., two feet deep. Plants will winter well in this way. They should be aired in fine, mild weather, and a sharp look out be kept for mice. Next to this a good dry cool cellar, where there is some light admitted occasionally, will answer. The plants should be stored away dry, and be kept as free as possible from moisture or decaying portions of leaves or wood.

Your other questions will be answered next month.

ACKNOWLEDGMENTS.

Our thanks are due to Stephen Hull, Esq., of Clyde, for some grains of an *early white table corn*, which he says is very superior—and for remarks on the culture of the pea nut, which we shall give in next, or a future number.

—To E. A. McKay, Esq., of Naples, Ontario Co., for a box of Isabella Grapes, from his vineyard.

—To Jas. H. Watts, Esq., for fine specimens of *Ribston Pippin* and other apples.

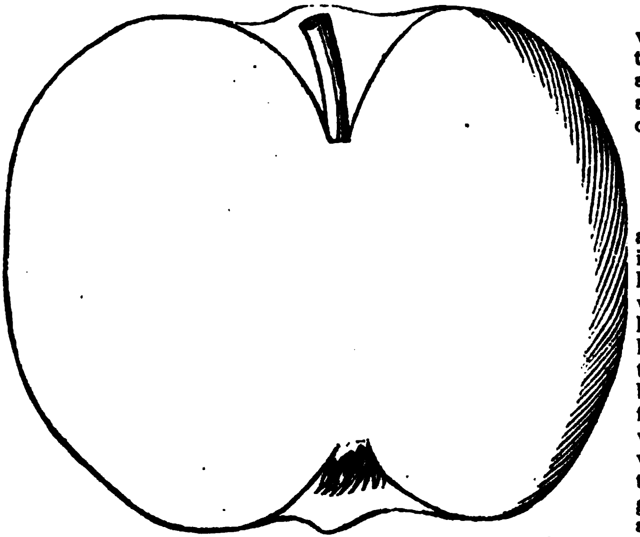
—To Mr. Ira Thurston, of Hemlock Lake, for very fine specimens of *White Doyenne* pear.

—To W. G. Verplanck, Esq., of Geneva, for half a bushel of *White Doyenne* pears, as fine as we have ever seen. This fruit attains its highest perfection in that vicinity, and is cultivated more extensively there than in any other part of the State.

Apples as an Article of Human Food.—The importance of apples, as food, has not hitherto been sufficiently estimated in this country nor understood. Besides contributing a large portion of sugar, mucilage, and other nutritive matter, in the form of food, they contain such a fine combination of vegetable acids, extractive substances and aromatic principles, with the nutritive matter, as to act powerfully in the capacity of refrigerants, tonics and antiseptics; and when freely used at the season of ripeness, by rural laborers and others, they prevent debility, strengthen digestion, correct the putrefactive tendencies of nitrogenous food, avert scurvy, and probably maintain and strengthen the powers of productive labor.

The French and Germans use apples extensively; indeed, it is rare that they sit down, in the rural districts, without them in some shape or other, even at the best tables. The laborers and mechanics depend on them, to a very great extent as an article of food.—*Selected.*

We should be glad to see our markets well supplied with such apples as this, the *Dyer*, *Hawley* and *St. Lawrence*, after the *Early Harvest* and *Strawberry* are gone, and before the *Fall Pippin* comes in.



THE GRAVENSTEIN APPLE.

This is one of the finest of all foreign varieties of the Apple that have been introduced to this country. It appears as far us we know, to be esteemed as excellent wherever it has been tested. Downing, in his Fruits and Fruit Trees says:—"A superb looking German Apple, which originated at Gravenstein, in Holstein, and is thought one of the finest apples of the North of Europe. It fully sustains its reputation here, and is unquestionably a fruit of first rate quality. Thomas, in his American Fruit Culturist says—"Productive, handsome and excellent. Fine in all localities." Cole, in his Fruit Book says—"one of the handsomest and best for all parts of the country, holding an equally high rank with the Porter; some prefer it."

Our own experience with its culture here enables us to endorse cheerfully these various commendations —and we notice it now to bring it more prominently to the attention of planters. It has yet found its way into comparatively few collections, while it should be in every one, great or small, in the whole country. It is one of the most vigorous and beautiful growers of the hundreds of kinds in cultivation. It makes a round, regular and well shaped head, without any care or pruning, and this, with its great hardiness and productiveness, render it a most valuable variety for the farmer's orchard, who has not the leisure or inclination to bestow much care on on his trees. It makes a beautiful and profitable Dwarf tree on the Paradise stock, for the fruit border in the garden.

Fruit large, roundish, slightly flattened. Skin pale yellow, striped and mottled with bright red. Stalk short and stout, in a deep cavity. Eye open, large, in a pretty deep and broad basin. Flesh white, fine grained, juicy, sub-acid, rich and pleasant. In use here during all the month of September. Wood is stout; bark smooth, dark brown and bright; foliage large and luxuriant.

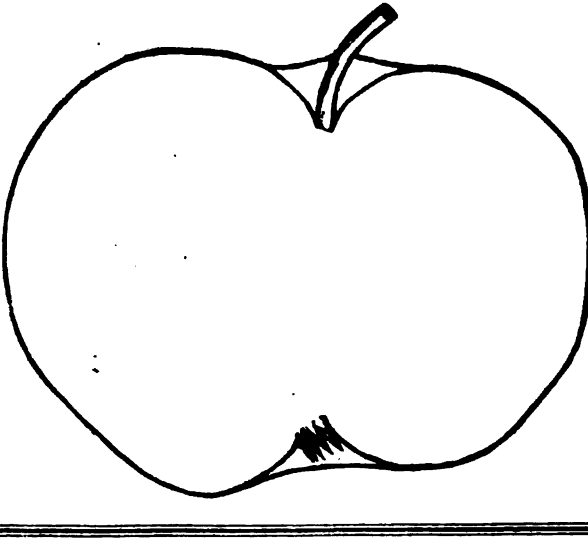
HAWTHORNDEN APPLE

The Hawthornden is a famous Scotch apple, and in all the British fruit gardens it is placed at the head of the list of kitchen or cooking varieties. As far as we are aware it is no better there than here. We have seen no other tree so loaded with fruit this season as a little tree of this sort in our garden. The branches were literally covered with fruit, and so beautiful that every one who saw them said they would cultivate it "if only for ornament." The tree is naturally dwarfish, but a strong grower nevertheless, and bears most abundantly when very young—similar in this respect to the *Keswick Codlin*, another famous English kitchen apple.

This apple originated at Hawthornden, the birthplace of the poet Drummond, and Downing calls it "an excellent bearer, a handsome fruit, and good for cooking or drying."

Fruit is about the size of the Early Harvest, quite flat, very regular. Skin smooth, of delicate pale yellow, often flesh color, with a bright red or crimson cheek. Flesh soft, juicy and acid; excellent for cooking. The Maiden's Blush is much similar in appearance, but the tree of Maiden's Blush is more erect and slender, the wood lighter colored, and the fruit harder.

We would particularly recommend this apple to those who are procuring dwarf apples, for garden culture, as its great beauty and early bearing, as well as its productiveness, render it eminently worthy of a place among a dwarf garden collection. As such trees are generally planted in gardens of small dimensions, surrounding the houses and homes of our citizens and villagers, some little regard should be had to the beauty of the tree and fruit.



HORTICULTURAL PARTY.

The following notice, which we extract from the Horticulturist, will show something of the Horticultural spirit in Philadelphia. We have been assured by many of the guests that this was one of the most delightful fetes they ever participated in; and how could it be otherwise?

Horticultural Party.—We learn that our friend, Dr. **Brinckle**, whose zeal and knowledge place him among the foremost of amateur horticulturists, held at his residence in Girard Square, Philadelphia, on the evening of the 13th September, one of the most agreeable horticultural *soirees* ever enjoyed in this country. Had we been able to accept his kind invitation, we would gladly have noticed this reunion more fully; but we now are forced to content ourselves with the following memoranda, kindly sent us by one of the guests.—Ed.

During the horticultural exhibition, we have had rather more than the usual supply of fruits and flowers; but the climax of the gala was last evening, when Dr. **Brinckle**, to do honor to the occasion, and to exhibit some remarkable fruits and wines that had been provided by his liberality and that of his numerous friends, gave a "Horticultural Party" at his elegant and hospitable mansion in Chestnut street, where were assembled the amatuers, the gardeners, and the friends of liberal culture. J. P. **Cushing**, Esq., of Boston, kindly forwarded a liberal supply of his best grapes, pears, &c., and the tables were in addition, ornamented with every flower now in bloom, the whole forming a fete such as the writer would be glad to see frequently repeated. As an evidence of the good things of this region, I beg to insert in the pages of the Horticulturist the following list of fruits exhibited at a private evening party on this single evening:

Oranges and Figs. *Citron melons*, two varieties.

Water melons—Mountain Sweet, Mountain Sprout.

Flowers—Very beautiful pyramids and basket bouquets for the table, from Messrs. **Bissett**, **Kilvinger** & **Raabe**.

Chinese Preserves—Finger fruit, Mangostan.

Native Wines—Longworth's Sparkling Catawba, Longworth's Catawba or Hock, Buchanan's Hock, Resor's Cape.

Foreign Wines—Washington Morton's Champagne, Geisler's do., Wirts & Co., do.: Hockheimer, two vintages; Weinnengen; very superior Hock presented by Mr. **Lennig**. Chambertin, Port, Sherry, Maderia.

Grapes—Black Hamburgh, very large, Hanstrell, do., White variety. *Nectarines*—New White, Early Violet. *Pears*—Bartlett, Golden Beurre of Biboa, Flemish Beauty. All the above from Mr. **Cushing**.

Grapes—Lashmere's Seedling, Chasselas de Fontainbleau, Muscat Muscadine, White Frontignan, Grizzly Frontignan, Raisin des Carmes, Decan Superb, Cambridge Botanic Garden, Victoria, Black Hamburgh, Black Prince, Fromental, Frankenthal. The above from Mr. **Buist**. Many other fine varieties were presented by Messrs. **Cleveland**, **Baxter**, **Johns** and **Copia**.

Pears—Petre, Chapman, Lodge, Pennsylvania, Moyamensing, Hanover, Seckel, Seckel from original tree, Autumn Bergamot, Zantzinger, White Doyenne, Gray Doyenne, Chancellor, Orange, Steinmentz' Catherine, D'Angouleme, Julienne.

Peaches—Many varieties.

An interesting item in the evening's proceedings consisted in testing the American wines. The labels from these and the best foreign brands were removed, and private marks attached. The best judges in the city were present, and the result would have been exceedingly gratifying to Messrs. **Longworth**, **Buchanan** and **Resor**, had they been present, and I may add, will do much in introducing the Cincinnati wines into use in this region. Yours, S.

GRAPE CULTURE.

We are glad to observe that the culture of the Grape is making rapid progress in our State. At the State and County Fairs this season, the quantity and quality of the Grapes presented have far surpassed anything we remember to have seen in former years. At our County Show we had Isabellas from Mrs. E F. **Smith**, of this city, **Zera Burr**, of Perinton, Mr. **Ainsworth**, of Bloomfield, and others, that in size, color, &c., approached bunches of Black Hamburg, raised under glass. Johnny Bull may turn up his nose at our "American sour grapes," but we have great reason to rejoice that we have a soil and climate where such grapes as these can be grown with comparatively no care at all

We have on our table a box of *Isabellas*, presented us by **David McKay**, Esq., of Naples, Ontario Co., from his young vineyard, as fine as Dr. Underhill ever gathered in his famous Croton Point Vineyard, and fit to appear in the dessert of the daintiest republican in the country. Mr. McKay designs supplying our market with grapes. His vinepard is in a very promising condition, and will no doubt yield him a handsome revenue.

It is almost incredible what a quantity of grapes a single vine of the Isabella will produce. A mechanic of this city planted a vine some seven or eight years ago, and now it covers one end of his house, gives him a delightful arbor, and this year has yielded about seven bushels of fruit. The man who has a place for a vine to run cannot invest fifty cents better than in planting a good Grape Vine.

The cultivation of Foreign varieties in cold vineries is also attracting much attention. These structures may be very cheap and simple, and yet answer every purpose. We copy below a notice of a very complete establishment of this sort, from the Horticulturist, and we may add that we saw exhibited at the American Institute, splendid specimens of *Queen of Nice*, *Muscat of Alexander*, *Black Prince*, and *Black Hamburg*, from the Clinton Point Vinery.

THE VINERY AT CLINTON POINT.

Our frontispiece is intended to convey to the reader some idea of the very complete vinery at Clinton Point, the residence of our neighbor, **Philip S. Van Rensselaer**, Esq., near New-Hamburgh, on the Hudson. [We omit cut of vinery.—Ed. Gen. Far.]

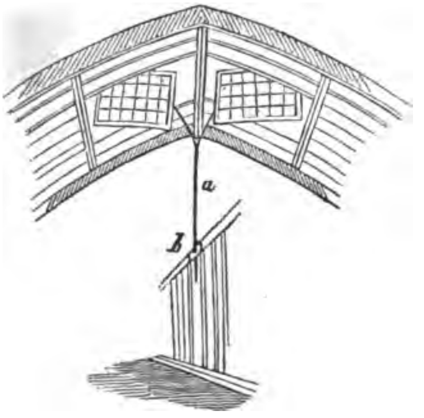
The effect of this vinery is so excellent, and its adaptation to the intended purpose so complete, that we consider it the best model for a cuvilinear house that we have yet seen. The general plan is not unlike that of many vineries near Boston; but in simplicity and nicety of construction, it far surpasses all the curved roof vineries that we have seen there, and was designed by Mr. Van Rensselaer after a thorough inspection of the best vineries in the country.

The house is built entirely of wood; and while it has an exceedingly light and pleasing effect, is at the same time very strong and durable. The view of the interior shows that the roof is supported by three rows of light posts, to which, in a very simple manner, the effect of clustered columns is given.

The house rests on *locust* posts, which are as durable as a stone wall while they offer no impediment to the free passage of the roots of the vines through the border on the outside or inside of the house.

In the ventilation of this vinery, Mr. Van Rensselaer has especially improved on other structures of the same kind, which we have seen elswhere. The current of air follows the same course as usual in houses of this kind; that is, it enters at the openings in the low wooden wall below the sashes, (boards hung on hinges,) and escapes at the movable sashes at the top of the roof; a mode which passes a stream of fresh air, entering at one's command, over the whole growth of the vines, from the floor to the topmost branch.

These movable sashes are swung on centre pivots; a mode allowing them to be more easily opened and shut than sliding sashes. Usually, sashes of this kind are opened and shut by means of *cords*, which, owing to the expansion and contraction of the material, effected by the atmosphere, is found a most imperfect mode.



Section of Vinery.

Mr. Van Rensselaer has ingeniously obviated this difficulty, by employing a forked iron rod, (see figure,) *a*, for opening and closing the sashes. This rod is about half an inch in diameter, plays, perpendicularly, up and down, through an iron socket, *b*, in the top rail of the trellis in the middle of the house. There is a thumb screw in this socket, which presses against the rod and fixes it at any desired height. Each branch of this ventilating-rod, where it is divided at the top, is only about a fourth of an inch in diameter: so that the fork is so elastic as to give it sufficient play to allow the sashes to rise and fall easily and freely, while, by means of the thumb screw, they can be held firmly in any position.

We have omitted to say that this is a "cold vinery;" that is, one in which no fire heat is employed,—a species of structure every day coming into greater favor in this part of the country. To grow the foreign grape in the highest perfection, it is only necessary to have the temperature of the house at that command which the full sunshine, and the admission or exclusion of the outer air, gives, without resorting to fire heat; and so abundant and powerful is the sunshine in this latitude that the Muscat of Alexandria, which in many sesons requires fire heat to mature perfectly in Boston, ripens regularly and fully on the Hudson in a cold-house.

The vinery at Clinton Point is, a span-roofed house 80 feet long, 18 feet wide, and 14 feet high. Mr. Van Rensselaer has deviated from the usual course, in placing it on a north-and-south, instead of an east-and-west line; and the results shows how wisley, for this climate, as the vines on both sides are equally exposed to the longest influence of the sun,—enjoying it from rising to setting; while at the hottest time of the day they are all far less likely to be injured by any excess of heat than vines on the sunny side of a house facing directly south.

We have, so far, only spoken of the vinery itself: but, as we are always inclined to judge of the tree by its fruit, we may add that all that we have said of the merits of the structure, is fully sustained by the extraordinary growth of the vines, and the magnificent grapes which they have produced this season. We have only seen them equalled in one instance, that of G. R. Russell, Esq., of West Roxbury, whose fruit bore off the palm at the Massachusetts horticultural exhibition last year.

The vines were only planted a year ago last July, and, of course, have not been allowed to bear a full crop this season; but the strong, vigorous, healthy wood with which they have filled the house, and the wonderfully fine clusters of fruit, of the highest flavor, which they have produced, show the advantages of the best structure and the best culture. The *border* in which they grow affords, indeed, a supply of food which explains, in part, the extraordinary growth of the vines,—since it runs under the whole house, and extends over a wide space all round it, being 80 feet wide and 120 feet long, by nearly 3 feet deep, and very thourougely manured.

The house contains a very complete collection of grapes, obtained from Mr. Buist, of Philadelphia, and we were glad to learn that every vine had proved correct. Besides the standard varieties, we noticed *Deacon's Superb*—perhaps the most beautiful of all new white grapes,—the clusters very large, berries oval, and closely set. *Reine de Nice*, (not ripe when we saw it,) was also laden with large clusters of very handsome fruit. *Xeres*, another white grape, also attracted our attention by the size and beauty of its clusters; while some bunches of the *Palestine* grape, more than 2 feet long, made us comprehend the biblical account of the grapes of the land of Canaan.

* * *

CAMOMILE.—A few roots of this plant should have a place in every garden. Not only are its medical qualities highly valuable, but its presence among vegetables is supposed to be an Ægis of protection aganist many diseases to which they are subject. It should be transplanted into warm and rich soil, early in the spring, and be assisted, during its early development, by copious manuring and frequent pressure. When plants, late in the season, exhibit symptoms of decay or general debility, the planting of a small root of camomile in their vicinage is frequently the most speedy and efficacious remedy that can be applied. The odor, or aroma, diffused by this plant, is also known to be highly repellant to many kinds of winged insects, and its presence among those species of plants and vegetables infested by such enemies, will protect them more effectually than almost any other agent known, and at comparatively small expense.—*Selected.*

* * *

CLEANING TREES.—Trees and vines which are kept the cleanest, bear the best; like the human body, the pores of their skin become clogged with dirt, and retain gases which should escape. Trees, the bark of which has been scraped and scrubbed, become more thriving, and more vigorous.

Editor's Table.

Drain Tiles, &c.—We have received from Mr. Alvin Wilcox, of West Bloomfield, specimens of horse-shoe Tile, and Pipe, of his own manufacture. They are made of excellent material—the best blue clay. The pipes left with us have been in use *eighteen years*, (buried three feet deep,) and appear to be as good as when first put down. The samples of both Tile and Pipe can be seen at this office.

"A Little more Grape."—We are indebted to Mr. S. H. Ainsworth, of West Bloomfield, for several clusters of very fine Isabella Grapes. If Mr. A. is as successful in other matters, as in grape culture, he deserves success in the nursery business.

Jefferson Co. Fair.—The proceedings at this Fair, held at Watertown on the 26th and 27th of September, have been received, and speak well for the farmers of Jefferson. The show was superior in most respects, and the number in attendance, as usual, large. The Address was delivered by the President, Moses Eames, Esq., of Rutland, one of the most enterprising friends of improvement in the State. It is one of the best, most practical and sensible addresses which we have ever read—and we shall endeavor to give some extracts in a future number of the Farmer.

The Michigan State Fair, we learn by Detroit papers, as well as from gentlemen who were in attendance, was much better, in every respect, than had been anticipated. The exhibition was good in each department, the attendance large, and the arrangements excellent. We know something of the enterprise and spirit of the farmers of Michigan, and expected a favorable report from the first Show of their State Society; and we doubt not the interest excited will be most salutary in promoting improvement throughout that fair and fertile Peninsula.

Maryland State Pair.—An attentive friend and correspondent who was present at this Fair, held in Baltimore, on the 10th, 11th and 12th of October, has favored us with particulars—but his letters did not reach us in time for publication. He speaks of the exhibition as highly creditable. The show of Stock was remarkably good, and the display of implements, &c., quite respectable.

Premiums of State Ag. Society.—Persons in this vicinity, who are entitled to Premiums, &c., from the State Ag. Society, can obtain them on application to the Assistant Secretary, Joseph Alleyn, Esq., of Rochester.

To Secretaries of Ag. Societies.—The Secretaries of County Ag. Societies will oblige us by forwarding papers or pamphlets containing proceedings of their Fairs, election of officers for 1850, &c.

Red Root Seed.—We are requested to state that Mr. M. F. Reynolds, No. 17 Buffalo-st., Rochester, will pay 25 cents a bushel for all the Red Root Seed which may be delivered at his store. Farmers who wish to dispose of a pest and get pay for the same, will please note the offer, and act accordingly.

Rochester Commercial Nursery,

No. 8 EAST AVENUE, ROCHESTER, N. YORK.

THE Subscribers respectfully inform the public that their stock of FRUIT TREES for sale this Autumn is very large, and comprises all the varieties that are really desirable. They leave to others the task of cultivating and selling worthless varieties, and intend to propagate none but such as have been well tested and approved.

To those who wish to buy to sell again, we can offer great inducements.

☞ Priced Catalogues furnished to post-paid applicants.

Sept. 1, 1849. [9-4m] BISSELL & HOOKER.

SEEDLINGS, for Sale at the Geneva Nursery.

PEAR, Plum, Cherry, Apple Quince, Mountain Ash, Horse Chesnut, Buckthorn, &c. SEEDLINGS and SEED of the above trees for sale at the Geneva Nursery.

Also, all kinds of Fruit and Ornamental Trees, Shrubbery, and Vines for sale.

Geneva, Ont. Co., N. Y. [10-3m*] W. G. VERPLANCK.

Merino Sheep for Sale.

THE over increase of the Flock on the Oakland Farm is offered for sale, as usual, this season—chiefly ewes The Sheep can be seen on the Farm, near the outlet of Seneca Lake. Letters post-paid shall have attention, and may be addressed to the subscriber at the Geneva Post Office.

J. DELAFIELD.

October, 1849. [11-1t*]

Penfield Nursery.

THE Proprietors of the above Nursery, in the Village of Penfield, offer for sale a very extensive assortment of FRUIT TREES, of the most approved and choice kinds, of extra size and vigorous and healthy growth. Being entirely worked by themselves, and all obtained from the most reliable sources, or cut from bearing trees of their own, will be a sufficient guarantee of their genuineness. A liberal discount made to wholesale purchasers.

Seedling stocks kept constantly for sale.

Prompt attention paid te (post-paid) applications containing the Cash or approved references. [1m*]

Penfield, N. Y., Nov. 1. 1849. HENRY FELLOWS & SONS.

Nursery Fruit Trees for Sale.

THE undersigned has from fifteen to twenty thousand cultivated Fruit Trees, fit for transplanting into orchards and gardens, for sale on liberal terms. There are over one hundred of the choicest varieties of Apple, Pear, Peach, Cherry and Plum Trees, in his collection, that can be found in this country. All orders from a distance will receive prompt attention.

MOSES LONG, No 29, Alexander street.

Rochester, N. Y., Oct. 1. [10-2m]

Dairy Stock.

FOR SALE, PLATO, a Bull 2 years old in August past.—Large, perfect in form, beautifully pied, a deep red and pure white. His sire the premium Hereford Bull of Thomas H. Hyatt, Esq. His dam, a cream colored Holderness Cow of great excellence, but one remove from the "IMPORTED HOLDERNESS BULL." For description of the genuine "Holderness" blood, see Genesee Farmer for September last, page 207. His dam gave milk the year round—in the best of the season from 26 to 30 quarts per day. He took the first premium at the recent Cattle Show in this County. For terms, which will be reasonable, either for cash or credit, enquire at the office of the Genesee Farmer or of the subscriber, at his farm in Brighton, four miles from this city.

LYMAN PAYNE.

Rochester, N. Y., Nov. 1., 1849.

Drain Tile, Pipes, and Roofing Tile.

BENJ. F. WHARTENBY, Manufacturer of DRAINING TILE, Drain Pipe, Roofing Tile, &c., offers them for sale at his kiln at Waterloo, Seneca Co., N. Y., at the following prices. 4 inch horse-shoe Tile, $15 per 1000—3 inch, $12 50—2 inch, $10. 4 inch Pipes, $16—3 inch, $14—2 inch, $10—1½ inch, $9—1 inch, $8. Roofing Tile, $20—13½ tile to the rod. Soles for the horse-shoe tile, half the price of tile; these are not always necessary.

All orders promptly supplied. [11-2t]

Waterloo, N. Y., Nov. 1, 1849. B. F. WHARTENBY.

Drain Tile, Pipe, &c.

THE Subscriber is prepared to furnish horse shoe Drain Tile, of superior make and material. Also, Drain Pipe, and Clay Candle Moulds.

The tile are warranted not to slack for one year, which will test their durability Price of horse-shoe Tile, $15 per thousand, or two shillings per rod, or two shillings per rod; flats (or soles) $7.50 per 1000 or one shilling per rod. All orders will receive prompt attention. Addres, or apply to

ALVIN WILCOX.

November 1, 1849. [11-1t*] West Bloomfield, N. Y.

Book Agents Wanted.

TWENTY Young Men can be profitably employed in selling Cheap Books and obtaining subscribers for

THE GENESEE FARMER,

and other valuable Magazines and Papers. The nimble ninepence is always better than a slow shilling. Thousands of men will purchase a good cheap Book who will not take expensive ones. Most of the following new works will be sold to agents at half price.

Good Behavior for Gentlemen,	$0 12½
Good Behavior for Ladies,	12½
The True Housekeeper's Guide,	12½
The Lady's Cook Book—Good Living for the Million,	12½
The Marksmen of Monmouth, a tale of the American Revolution, by Curtis,	25
Knowlson's Horse Doctor,	25
Every Man his Own Lawyer,	1 00
The Married Woman's Medical Companion,	50
Life in Rochester, its Vice and Misery,	25
The Home Doctor,	12½

The above works, together with a general variety of new Books, Maps, Cards, Pictures &c., &c. Also,

THE GENESEE FARMER FOR 1848,

stitched and bound in handsome paper covers, containing a vast amount of very valuable and entertaining matter, illustrated with numerous engravings—a work which should be in the possession of every man who owns a rod of land. Price 50 Cents.

☞ Agents who desire to sell Books will require a small cash capital of from 10 to $25, and will in all cases be indemnified against loss. An active young man can make from $1 to 3$ per day. Address, (post paid,) D. M. DEWEY,

Arcade Hall, Rochester, N. Y.

A New Book for Every Farmer!

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology. Botany, and Meteorology, applied to practical Agriculture: by M. M. RODGERS, M. D., with the approval and assistance of several practical and sientific gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and yonger agriculturists."—*Prof. Chester Dewey, Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N. Y. Farmer and Mechanic.*

"It appears to be excedingly well adapted for the purpose of instruction. It is concise and plain—neither too much nor too little"—*Hon. Zadock Pratt.*

"We have seen enough to convince us that it is a work of rare merit. such an one as will meet with the approbation of all intelligent readers. Every agriculturist who reads and digests should procure the work."—*American Farmer, Baltimore.*

"We commend the work to the Farmer, especially to the young farmer, as well worthy of his attention."—*Berkshire Culturist, Pittsfield, Mass.*

"We think the author has ably preformed the difficult task of rendering science easy to the practical farmer."—*New England Farmer, by S. W. Cole.*

ERASTUS DARROW, Publisher and Bookseller,
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally.

⁂ DARROW has a large stock of BOOKS at wholesale or retail, Orders promptly answered. [3-eom-tf]

Owen Morris,

CITY BINDERY, UNDER THE MUSEUM, ROCHESTER. N Y.

THREE Silver Medals have been awarded to the subscriber for the best specimens of Book Binding, exhibited at the Mechanics' Fairs held in this city and Buffalo.

Gentlemen's Libraries fitted up and repaired; Music paper ruled. Music and Periodicals bound and finished to any pattern; Blank Account Books executed at this establishment. have given unequalled satisfaction, by their durability and elegance. Strict attention is always paid to the quality of paper used. to render them equal to the best in the United States, or those imported.

Ladies' Scrap and Guard Books, Albums and Portfolios, in all their varieties, manufactured to order in the best style.

Banks, Institutions, Societies, &c., may be assured of work being done on the most advantageous terms.

Gentlemen residing at a distance. by packing and forwarding volumes to the above directions, stating price and style, may rely upon their being well bound on the most favorable terms, also carefully and punctually returned.

N. B.—The proprietor has spared no expense in fitting up the establisment, and introducing into Western New York the latest improvement in Book Binding.

☞ The Genesee Farmer and other periodicals bound to order.

OWEN MOBRIS.
City Bindery. under the Museum.
Rochester Nov. 1, 1849 [11-tf]

Patent Improved Railroad Horse-Power and Overshot Thresher and Separator.

THIS Power & Thresher, which has been so long before the public, and given such perfect and universal satisfaction, has met with such a constant and rapidly increasing sale, that other manufacturers sometimes adopt headings similar to those of my advertisement—and, in some cases. parts of the advertisements themselves—which, if not observed, may lead to mistakes, and purchasers may get, instead of the machine which has earned the reputation, one of a different construction.

The machine has been much improved, and no pains or expense is spared to make it in the most thorough and durable manner, as we have the greatest facilities as to power, room and materials at our command. It is the cheapest. simplest, most durable and portable set of machinery for the purpose in use, and warranted in every case to give satisfaction to the purchaser. For further particulars see my advertisements in the agricultural papers of the United States and Canada. Catalogues and circulars furnished gratis on application by mail.

HORACE L. EMERY,
Agricultural Warehouse, 369 & 371, Broadway, Albany, N. Y.

Improved Well and Cistern Pumps.

DOWNS, MYNDHERSE & CO., of Seneca Falls, N. Y., would call the attention of Hardware Merchants and all others who have occasion to deal in or use suction pumps, to their *CAST IRON, REVOLVING SPOUT AND CISTERN PUMPS*, for which they have obtained Letters Patent of the United States. For particular description and figures of our Pump, see August number of the Genesee Farmer, page 181. [9 tf]

Nursery of J. J. Thomas, Macedon, N. Y.

THIS Nursery now contains many thousand fine trees. o large, handsome and thrifty growth. consisting of Apples, Pears. Cherries, Apricots, &c., and the smaller fruits, of the best standard sorts, and most of the finest new varieties; ☞ in all cases they have been propagated for sale after being thoroughly proved in bearing. ☜

The collection of APPLES, consisting of many thousand large trees, mostly 7 to 9 feet high, embraceig the finest stanard varieties. and nearly all the valuable new sorts.

Very fine pear seedlings, at $12 per 1000, two years old apple seedlings, at $5 per 1000, Horse chesnuts 1 to 2 ft high, at $5 per 100. &c., &c.

When purchasers desire. selections of the best for affording a regular succession of fruit throughout the seson, will be made by the proprietor.

A carefully assorted collection of hardy ornamental trees, shrubs, and herbaceous perennial plants, will be furnished at very moderate prices.

Trees for canal and railroad conveyance, will be well packed in bundles, enclosed in strong mats, with the roots mudded and encased in wet moss. so as perfecly to preclude all danger of injury.

All communications, post-paid, to be direocted Macedon. Wayne Co., N. Y Oct. 1, 1849.

Monroe Nursery,

RIDGE ROAD, SIX MILES WEST OF ROCHESTER.

THE undersigned. proprietor of the above well known establishment, takes this opportunity of returning thanks to his friends and the public for their liberal patronage last spring. He offers this fall. a complete assortment of Nursery Productions—(he does not presume to say that he has a larger stock than his nursery friends, but he has as good)—at greatly reduced prices, and warranted correct. His Cherry Trees are particularly fine, of three year's growth, and 8 to 10 feet high.

He would invite all about making purchases of trees, &c., this fall. to come and examine his stock previous to looking elsewhere.

The public is again notified that N. Goodsell is not employed by him. CHARLES POWIS.

Greece, N. Y., Oct. 1, 1849. [10-2m]

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE.—Irving Hall. opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch. we intend going more extensively into all the branches of our business. We shall keep constantly for sale. all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators. &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows. Sub-soil, Delano's. Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence. we have one of the largest. most carefully grown and best selected stock of FIELD. GARDEN and FLOWER SEEDS in the country. including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1. 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years. and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple. substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention. J. A. HOLMES & CO.

Brockport, March 15. 1849.

A Small Farm Wanted.

A Letter addressed to C. S, Newport. N. Y., describing the premises, and mentioning the terms, will receive attention.

August, 1849. [8—3t*.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist, containing more than triple the matter of the former editions, having been wholly re-written, so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It contains more than

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole forming a handsome duodecimo volume, of over 400 pages, at the low price of One Dollar.

The work belongs to the author and is not traded. A liberal discount is made to Booksellers.

DERBY, MILLER & CO.,
Oct. 1., 1849. [10-3m] Publishers, Auburn, N. Y.

☞ The above work just received and for sale at the office of the Genesee Farmer. It can be sent by mail. Price $1.

Buffalo Nursery and Horticultural Garden.

THE Proprietor of this old establishment offers for sale a very large assortment of FRUIT AND ORNAMENTAL TREES, FLOWERING SHRUBS, &c. The Fruit Trees are very vigorous and healthy. His whole stock has been propagated with the greatest care, and mostly from bearing trees, growing on his own grounds.

Apple Trees of some fifty of the most choice sorts, including Northern Spy, Roxbury Russet, &c., &c., by the thousand at very reduced prices. Dwarf Pears, a fine assortment of beautiful trees. *No fire-blight in these nurseries.* 8,000 Peach Trees, of the very best sorts; fine trees and free from all disease. Cherries; a fine collection grown with low heads. Also, a good assortment of the Plum, Pear, Apricot, Nectarine, Quince, and all the smaller fruits.

The assortment of Ornamental Trees, Flowering Shrubs, &c., comprises almost every desirable article. Annual importations are made from Europe of new and rare varieties of Fruits, Roses, &c. Apple, Pear, Quince aud Plum STOCKS by the quantity, and Nurserymen supplied with trees of large or small size at low prices.

Orders by mail or otherwise, and letters of inquiry will receive prompt attention. Every article carefully labelled, securely packed and forwarded agreeable to order, and with the least possible delay.

☞ Descriptive Catalogues sent gratis to all [illegible]pply (post paid,) and every article will be sold at the lowes[illegible]ery prices.
Buffalo, N. Y., Sept. 1. 1849. [illegible]. HODGE.

Seedlings for Sale.

THE Subscribers, proprietors of the Old Castle Nurseries Geneva, N. Y., have for sale

50,000	Quince	Seedlings,	15 to 20	inches	high,	$10	per	thousand.
50,000	Cherry	do.	8 to 15	"	"	8	"	"
40,000	Pear	do.	8 to 20	"	"	10	"	"
20,000	Plum	do.	8 to 15	"	"	10	"	"
20,000	Apple	do.	2 y'rs old, nice for grafting $5 per 1,000.					

They cultivate extensively, and have for sale the rare and approved varieties of Fruit and Ornamental Trees, Also, Buckthorn, Hawthorn, &c, for hedges.

All orders promptly attended to. Trees sent a distance well packed and delivered at the railroad depot.

T. C. MAXWELL & CO.
Geneva, N. Y., Oct. 1, 1849. [10-2m]

Notice—Seedlings For Sale.

60,000 Apple Seedlings, of three years growth, for sale by the Subscriber. Price $8 per thousand.

ELIAB YEOMANS.
Walworth, Wayne, Co. N. Y. [10-1t]

Removal to No. 21 Buffalo-st., Talman Block.

C. HENDRIX & SON,

WHOLESALE and Retail Dealers in Iron, Steel, Nails, Spikes, Shelf and Heavy Hardware. House trimmings of all kinds, as cheap as the cheapest.

Rochester, Oct. 1, 1849. [10-8t]

MOUNT HOPE GARDEN AND NURSERIES,

ROCHESTER, N. Y.

THE proprietors invite the attention of Fruit Growers, Nurserymen, and dealers in trees to their present stock now offered for sale. By recent large importations from Europe, and an extensive scale of propagation at home, we have obtained a stock of nursery articles as complete as any in the country, and we offer them to purchasers on the most liberal conditions.

The well known health, vigor and hardiness of the trees raised here, and the undivided and scrupulous attention given to every department by the propietors in person, offer great inducements to purchasers

STANDARD FRUIT TREES,

Consisting of all the best varieties of the *Apple, Pear, Plum, Cherry, Peach, &c.*, of suitable age and size for orchard planting. The principal stock is made up of the well known popular sorts, but all the new American and foreign kinds are in our possession, and can be furnished.

PYRIMIDAL AND DWARF TREES,

Consisting of select varieties of Pears on Quince, Apples on Paradise, and Cherries on St. Lucie, or Mahaleb stocks, for gardens, and limited grounds; and for nurserymen and others who wish to obtain fruit from their trees at an early day. We have for many years given special attention to this department, and therefore believe we have probably the largest and best stock in the Union.

GOOSEBERRIES, RASPBERRIES, CURRANTS, ETC.

Of these we have a large and complete assortment, and can supply them by the 100 or 1000. The best English Gooseberries are imported every year. All the new Currants can be supplied.

ORNAMENTAL TREES, SHRUB ROSES, ETC.

All the leading sorts, such as Horse Chesnut, Mountain Ash, Ailantus, &c., can be furnished by the 1000 or 10.000 at much below ordinary rates—besides a large collection of new and rare Trees Shrubs, Roses, &c., recently imported.

HEDGE PLANTS.

Buckthorn 2 and 3 years from seed; Osage Orange, 1 and 2 years; Privet; besides Evergreens, such as Red Cedar, Hemlock, Norway Spruce, Arbor Vitæ, &c., can be furnished to any extent required.

STOCKS AND YOUNG WORKED TREES FOR NURSERYMEN.

Pear Seedlings, 1 and 2 years transplanted; Plum do., 2 years from seed bed; Paradise Stocks, for Dwarf Apples; Mazzard Cherry Seedlings, 1 year; St. Lucie, or Mahaleb Stocks, for dwarf Cherries; Quince Stocks, of sorts commonly used.

Young worked tres for distant transportation.

NEW UPRIGHT QUINCE the most easily propagated, and freest grower. We have now obtained a pretty large stock, and can supply them in moderate quantities.

Wholesale Priced Lists and General Catalogues forwarded to all post-paid applications.

Sep 1, 1849. ELLWANGER & BARRY.

Albany Agricultural Warehouse,

No. 369 & 371 SOUTH BROADWAY.

THE Subscriber having during the past season suffered in common with many of his fellow citizens—his warehouse being consumed, &c.—has procured the spacious new store erected for his business, No. 369 and 371 South Broadway, where he has an extensive assortment of all the best and leading AGRICULTURAL IMPLEMENTS and MACHINES in use. From his long and successful experience in the manufacture and sale of articles in his line, he flatters himself that he can suit the wants of the farming public to the best of its kind, and on as favorable terms as any other manufacturer in the States.

Among his assortment are his celebrated Horse Powers, Threshing Machines and Separators.

Smith's Patent Cornshellers for horse power.

Clinton Hand Shellers, single and double hopper; Grant's Patent Premium Fanning Mills, for power and hand, &c, &c.

Also, a complete assortment of Garden, Field and Grass Seeds.
[9-tf] H. L. EMERY.

DR. KITTRIDGE'S

CELEBRATED SPRAIN & RHEUMATIC LINIMENT.

NO better preparation was ever offered to the public for the following complaints:—Rheumatism, Lame Backs, Bruises, Sprains, Stiff or Contracted Tendons, Swellings, Stiff Neck, Nervous Headache, Earache, &c

This Liniment is likewise excelled by none in its use upon Horse and other Animal Flesh, for curing Spavins, Sprains, Sweenies, Galls and all flesh wounds.

Price Fifty Cents per bottle. Prepared and sold, wholesale and retail, by

A. GRANT,
No. 43 Exchange-st., Rochester, N. Y.

AGENTS—Isaac Mitchell, East Bloomfield; S. D. Lundy, Waterloo; W. P. Matison & Co., Seneca Falls; E. W. Cheney & Sons, Canandaigua; Clark & Pierce, Livonia; H. Tilton, Moscow; Whitney & Laflin, Mt. Morris; Ely & Co., Clyde.

October 1, 1849. [10-tf]

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office.

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Market Prices of Agricultural Products.

New York, Oct. 24.

Ashes—Market better for Pearls with a fair demand, and sales 40 bbls at 6 12*a*6 25. Pots in good demand and steady at $7.

Flour & Meal—Western and State Flour quite active and for good market is 6c better. There is a speculative demand in expectation of enhanced prices by the steamer now due. Sales 15,000 bbls at $3*a*3 25 for uninspected, 3 62*a* 4 12 for sour, $4*a*4 37 for fine. 4 62*a*4 75 old common state, mixed western and Canadian, 4 75*a*4 87 new common State and old strait western. 4 87*a*$5 for strait and very good state, 5 12*a*5 25 mixed, strait and favorite Western. 5 12*a*5 25 pure Genesee. Meal steady and quiet. Sales 350 bbls Jersey at 3 12.

Grain—Holders of Wheat are pretty firm. Fair demand for milling. Sales 3,600 bu prime Genesee at 1 21, Canadian in bond, and 3,000 white on private terms, 3,300 prime white southern 1 15. Corn is again rather better with a good demand, part speculative and for export. Sale 50,000 bu at 62½*a*64 southern mixed, 64½*a* 65 western yellow, and 65*a*65½ northern yellow.

Seed—Market very quiet for flax; small sales Canadian at 1 37 and Jersey 1 40 per 56 lbs.

Wool—Market has been very quiet for the last three days; sales 40,000 lbs at full quotations, which are for common 30c. ¼ blood 34c; ½ and ¾ blood 30*a*32, full blood Merino 40, Saxony 45; sales of pulled 20,000 lbs since last report at 28c for No. 1 city pulled, 31 for superfine do, 34*a*35 extra do, 32 for No. 1 country pulled, 35*a*36 for superfine, and 40 for extra do.

To Advertisers.—The Publisher of the Farmer begs to remind all interested, that his terms for advertising, as well as subscription, are *cash in advance.* Those who wish to avail themselves of the superior advantages of the Farmer as an advertising medium, should send requisite payment with their orders, *to secure attention and insertion;* and those whose notices do not appear, will, with this explanation, understand the reason.

In most cases, in which we have, in order to accommodate distant friends, (?) published notices without a rigid adherence to advance terms, vexation and loss have been our reward for the favor extended. We have hundreds of dollars due us, which we are unable to collect by ordinary means Many to whom we send bills, requesting payment, give the matter no attention whatever—and thus, after being *largely benefitted* by our extensive circulation, either *refuse* or *neglect* to be———. This is pleasant —very. However, some of these silent gentlemen may possibly soon receive a benefit through the pages of the Farmer in the shape of an *entirely gratuitous and conspicuous notice*—the only way perhaps in which we can square accounts!

Bound copies of the present (tenth) volume of the Farmer will be ready for delivery on or before Dec. 1. Price 50 cents in paper—62½ cts. in boards and leather. A very liberal discount to Agents, Booksellers, &c.

Back numbers and volumes of the Farmer promptly supplied to agents and new subscribers.

First in Beauty and Value—Cheapest and Most Popular.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

VOLUME XI, FOR 1850.

In issuing a Prospectus for the *Eleventh* Volume of the Genesee Farmer, the Publisher considers it unnecessary to state at length the design and objects of the work, or repeat former pledges as to its management. Those who read the Farmer are the best judges of its value and character, and can decide whether it is worthy of continued support—and those who are unacquainted with it are invited to examine its pages. In popularity and usefulness it now ranks *first* among the various monthly journals of its class published in America, and every proper effort will be made to sustain its high reputation as an earnest and valuable aid to the Farmers and Fruit Culturists of the Country.

The new volume will commence on the 1st of January, 1850. It will be published in the best style, as heretofore—on handsome and clear type and *superior paper*. The volume will be appropriately illultrated—containing numerous and expensive Engravings of *Farm Buildings, Improved Implements, Domestic Animals, choice Fruits, Flowers, Shrubs, &c.* Indeed, in typographical aspearance, we design to make the volume for 1850, what the present one is pronounced, the *most beautiful Farmer's Journal* yet issued in this country. ☞ Each number will contain TWENTY-FOUR ROYAL OCTAVO PAGES! making a large and handsome volume of about 300 pages, (with Title Page, Index, &c., suitable for binding,) at the close of the year.

Placing its claims to support upon its merits alone, we respectfully submit the work as eminently calculated to promote the individual and collective interests of the Agriculturists and Horticulturists of the United States. Grateful for the unexampled patronage already extended to the Farmer, we solicit the aid and co-operation of all its friends and readers to increase the circulation and thus augment the usefulness of the *cheapest and handsomest Agricultural Magazine* ever offered to the American Public.

Terms—Invariably in Advance—as follows:

Single Copy, 50 Cents. Five Copies for $2, and any greater number at the same rate, if directed to individuals. If directed to *one person*, Eight Copies for $3, and any additional number at the same rate. The entire volume sent to all subscribers.

☞ Post-Masters, Agents, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free.) at the risk of the Publisher. Address to

PUBLISHER GENESEE FARMER,
[illegible]vember, 1849. *Rochester, New York.*

[illegible] GENESEE FARMER,
Published [illegible] *first of each month, at Rochester, N. Y., by*
D. D. T. MOORE, PROPRIETOR.

DANIEL LEE & D. D. T. MOORE, Editors.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

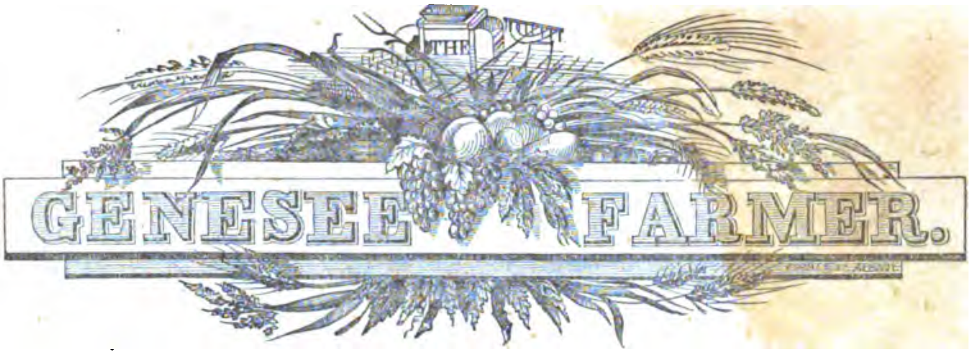
Five Copies for $2, and any larger number at the same rate, if directed to each subscriber. Eight Copies for $3, if addressed to *one person only*—and any larger number, directed in like manner, at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

Advertisements.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—in advance. The circulation of the Farmer is from five to eight thousand larger than that of any other agricultural journal published in the United States.

☞ Advertisements, notices, &c. should be forwarded on or before the 15th of the preceding month, to secure insertion in any specified number.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.



THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. X. ROCHESTER, N. Y.—DECEMBER, 1849. NO. 12.

TO THE FRIENDS AND READERS OF THE FARMER.

Having disposed of the Genesee Farmer to Dr. Daniel Lee, the connection of the undersigned, as Publisher and Associate Editor of the same, ceases with the present number and volume. The occasion which renders this announcement necessary, will permit a brief review of personal efforts, without sujecting the writer to the charge of possessing an undue share of egotism.

For the past four years my time and energies have been exclusively devoted to this Journal and the interests it has sought to promote. Aside from personal considerations, my heart has been ardently engaged in the Cause of Rural Improvement and Progress—and for its advancement I have hopefully and cheerfully labored. However humble the instrument, or feeble the capacity, the objects in view were most worthy, and the efforts put forth have been earnest and unceasing. When the Farmer passed into my hands, few, even of its best friends, believed that it could be resuscitated and established upon a permanent basis—and nearly all considered the enterprise extremely unpropitious. But, confident and enthusiastic, I judged otherwise, and determined to MERIT and ACHIEVE success. To accomplish an object so desirable, personal ease and pleasure were disregarded, and whatever industry and ability I could command brought into requisition. The result proves that my confidence was not misplaced, and that the labor bestowed upon the work by its conductors, has met with commensurate return in the substantial and unexampled support received. And it affords me pleasure to state in this connection, what I trust will prove equally gratifying to its readers, that the Genesee Farmer now has a greater circulation than ever before, even in its palmiest days—and that, consequently, it is entitled to rank as at least equal, in both influence and usefulness, to any of its able and well conducted contemporaries.

The unusual success and popularity of the Farmer, however, have not been acquired by the writer and his able associates, (Messrs. Lee and Barry,) alone. Others are perhaps entitled to equal if not greater credit. As Publisher, particularly, I have been constantly aided by numerous influential persons residing in various sections of the Union. Indeed, they have seconded my efforts, and responded to my requests, in every appropriate manner—in the capacity of Contributors, Agents and Subscribers—and it is to them, rather than to any talent or exertions of my own, that the public are mainly indebted for whatever benefit may have accrued to the agricultural community through the agency of my constant and persevering labors. Unsustained by such friends—men of enterprise, possessing influence in their various localities, and actuated by high and generous motives—the Farmer would never have become so valuable and creditable as it now is, or even been kept in existence. To each and all, therefore, who have in any manner contributed to the success of this Journal—either by communicating the results of their observation, study and experience to its pages, or in augmenting its subscription list—I tender the sincere and grateful acknowledgments of an appreciating heart, not only for kindness extended to myself, but for the exercise of that spirit of liberality and true patriotism which has induced them to award support to a publication designed to promote the most prominent interests of our wide spread Republic.

To the Press, at home and abroad, I am indebted for many friendly notices and favors. This remark applies particularly to the Press of Western and Central New York, to the conductors of which I am under especial obligations for personal kindness and courtesy on all occasions. To all members of the brotherhood, near and distant, cordial thanks are tendered for past favors—with an assurance that the acquaintance which has proved so pleasant to myself will ere long be renewed. May they all use wisely and successfully the power they have to enlighten and instruct the heart and mind—to direct and control public opinion and character. May usefulness guide them continually, and honor and prosperity attend their future efforts and progress.

In reviewing my editorial career I find comparatively little that I should wish to undo. Much, however, has been omitted. The printing and publishing of the Farmer has necessarily occupied a great share of my attention, and (Dr. Lee being absent much of the time, engaged in other important duties,) the editorial department has suffered in consequnce. Indeed, I do not claim to have performed fully and well the duties of an Editor — and have certainly fallen far short of my own standard, and conception of what ought to be accomplished. It has been my constant aim to keep the pages of the Farmer free from error and imposition of any and all kinds, and to render every line reliable and useful to its readers. How well I have succeeded in this honest endeavor each subscriber must judge for himself. But I trust my efforts have not proved worthless to those for whose benefit I have labored, and that the back volumes of the Farmer are worthy of preservation and valuable for present and future reference. I leave the publisher's desk and editorial chair with the consciousness of having endeavored to perform aright the duties that have devolved upon me—the conviction that I have dealt uprightly, and that the pages of the Farmer have been kept comparatively free from matter offensive to good morals, correct taste, common sense, and practical and judicious husbandry.

Although no longer connected with it my good wishes for the success and usefulness of the **Genesee Farmer**, will not, I trust, diminish. My connection with the paper has been pleasant and not unprofitable—and in leaving it I fervently desire the prosperity of my successor. Dr. **Lee** has recently returned from the South, and will hereafter devote his principal time and attention to this Journal. To those who have perused his able articles and essays, or listened to his eloquent lectures, it is unnecessary for me to speak of his superior abilities. But in order that the agricultural community may receive the full benefit of his services, every reader of the Farmer should lend a portion of influence in its behalf. And I will here ask all the friends of the paper to continue and increase their generous exertions to augment its subscription list, and likewise to be liberal in their contributions to its pages. While I desire that its circulation and consequent power for good may be greatly increased, I hope the paper will continue to be an organ through which sound practical farmers and men of science will impart their experience and wisdom to all reading and thinking cultivators.

In retiring from the Farmer I shall not dissolve my connection with the Agricultural Press, nor abate my efforts for the promotion of Rural Improvement. My labors will be equally earnest, and more frequent —devoted to a *weekly*, instead of a *monthly* periodical. If any desire to continue the acquaintance, I shall be most happy to receive and respond to orders for **Moore's Rural New-Yorker**, for Prospectus of which see advertising department of this number.

It is with emotions of no ordinary character that I take leave of the readers of the Farmer, and add *finis* to my humble but well intentioned labors as connected therewith. To all subscribers and friends I wish success commensurate with their skill and perseverance in enriching both the SOIL and the MIND. That they may reap from the former most abundant harvests, and that the latter may ever abound with the imperishable fruits of knowledge and wisdom, are my fervent aspirations.

D. D. T. MOORE.

The undersigned has purchased the type, good will, patronage and subscription list of the Genesee Farmer, and will hereafter *publish* as well as *edit* the paper. Although one half of the subscription right has belonged to me since the close of the year 1844, yet it is due to Mr. D. D. T. **Moore** that I should say, in parting with him, what is strictly true, that the unparallelled success of the Farmer under his administration is mainly to be ascribed to the ability, fidelity and indomitable perseverance of that gentleman. In whatever enterprise he may embark, I trust he will command, as he will unquestionably deserve, equal, if not greater success.

It is much pleasanter to speak of others than of one's self. But duty calls, and I shall speak plainly what I feel. Born and reared among the farmers of New York, and having ever labored to promote their educational, their agricultural, and other common interests, why should I be compelled, when over [illegible] five years of age, to go a thousand miles South to earn bread for my family? Before regarding this as absolutely necessary, I prefer to make one [illegible], and *only one*, to the readers of the Genesee Farmer, and wait the result.

There are now some twenty-two millions of [illegible] in the United States, more than two-thirds of [illegible] are farmers, or belong to the families of farmers. [illegible] deem it as a matter of inestimable moment [illegible] republican system of government, and the good [illegible] classes, that *these millions*, however diffusely scattered and settled soon begin to cultivate a taste for rural literature and science—a love for agricultural reading and books. To promote this object, [illegible] feeble pen and feebler tongue have toiled [illegible] for years. My son will soon be taught to set [illegible] the type used in printing this cheap Agricultural Journal; and the little savings of a life time will [illegible] to pay for a small steam engine and a good [illegible] press, which can work off 2,500 sheets of the Farmer in an hour. It will, as hitherto, be sold to [illegible] at the pittance of thirty-seven and a half cents a volume, or a year.

Mr. **Barry** will continue to conduct the Horticultural Department; and no pains will be spared to render the work a favorite among all who [illegible] well to the cause it advocates. It will be handsomely illustrated with new and elegant engravings. It is my purpose to *condense* into a small space [illegible] information culled from foreign and American journals. In this way, by the liberal expenditure of personal toil, a volume of rare excellence can be produced.

I disclaim all wish to compete with the [illegible] of other similar journals; and I urge my friends [illegible] disabuse their minds of the too popular error, that [illegible] farmer who reads one book or one periodical, devoted to the several arts and sciences which pertain [illegible] rural affairs has no occasion to read another book, [illegible] another periodical, to make him wise and accomplished in his important profession. While [illegible] three millions in the thirty States, who read nothing, had better subscribe for the Genesee Farmer, [illegible] begin to learn *a little*, those that are more advanced may profitably extend their studies to other and more expensive works. In a nation of farmers so prosperous as this, what is fifty cents a year to any one, whether male or female, who really desires to improve a farm, a garden, or an orchard; or to enlarge the minds of the several members of a family [illegible] possess these things? This journal ought to have [illegible] circulation of fifty thousand copies, and if it [illegible] reach that figure, it shall not be my fault.

Kind friends, I rely on you to aid in a work [illegible] which I must unavoidably give much labor for [illegible] pay. It can only prosper by the gratuitous assistance of all that wish well to the Cause. In [illegible] this paper has served as a pioneer for twenty years, I have faith to believe that it is destined to do vastly more good within the next twenty, than it has during the last. My arrangements for correspondence, and foreign periodicals are such, together with [illegible] personal attention, as must greatly improve the future volumes of the Farmer. Send forward then your long lists of subscribers, and I will see how good a volume I can send you in exchange for your money.

DANIEL LEE.

AGRICULTURAL EDUCATION.

We are happy to say there is every reason to expect that the Legislatures of New York and Massachusetts will each establish an agricultural school at its approaching session. Public sentiment at last, has been brought not only to *tolerate*, but to demand the professional education of young farmers. Those that have labored long and against a mountain of prejudice to achieve this result, may well rejoice at the success of their indomitable efforts. Glorious will be the day when the noble arts of Tillage and of Farm Economy, shall fairly emerge from the *empiricism* of unnumbered ages. Science and Literature have often wandered far, and to little purpose. They are now returning like the prodigal son, tired of feeding on husks, to make an enduring home in the peaceful dwellings of American farmers. The generous soil of this young Republic is destined to produce something better than luxuriant crops of grass and grain, fine sheep, cattle and swine. It will yield a bountiful harvest of *men*, improved to the highest attainable point, in all the knowledge, and in all the virtue most useful to intellectual and moral beings.

We thank our Maker that this production of noble men is likely to be as much esteemed in our lifetime, as are bulls and boars, rams and breeding mares. Of all domesticated wild animals, the genus *homo* is most neglected on many farms. England awards premiums of fifty guineas for rearing well formed calves; while she permits unsightly children to be educated for the poor house and the prision. Of all things pertaining to the well-being of society and government, that of training up children in the way they sould go is most important. We take the liberty to offer a few hints on this subject in connection with what we regard as a good Agricultural Education. To attain this object, boys must be educated on well-cultivated, well-managed farms. This will withdraw them from many temptations, alike adverse to sound morality and injurious to physical health and mental vigor. The chief corner stone of human improvement lies in obedience to the letter and spirit of that simple prayer—*"lead us not into temptation"*. Lead children not into temptation; and even adults had better keep as far removed from it as practicable.

A school on a good farm will possess many advantages beside its exemption from all the bad examples and immoral influences of cities and villages. Pupils can be boarded much cheaper on the soil that produces their daily food, (not a little of which may be the fruits of their own skill and industry,) than they can be elsewhere. The fact is not to be disguised, that to impart a large mesure of literary and scientific knowlege to the sons and daughters of a whole community, involves considerable expense, which somebody must pay. Therefore, the writer has long studied to economise in every practical way, the whole art and science of thoroughly educating every child in a State.

Boarding and tuition are the principal items of expense. The cost of tuition can only be justly reduced, by so arranging pupils in large classes that a competent and skilful teacher may instruct many at a time; and of course, at a small fee for each person taught. This implies the existence of large schools and several departments in each—a university in miniature. Western New-York should have a Normal School located on a good farm, with a view to econonmy in living, and to realise the many incidental advantages connected with the arts of agriculture, horticulture, fruit and arbor-culture. But as this may not be the proper time to urge the founding of such an institution, we will give a brief outline of an Agricultural School which will, in our humble judgement, most benefit the great farming interest of the country.

1. There should be a professorship of Geology in its application to agriculture.
2. One of Analytical Chemistry and Meteorology.
3 One of Botany, Vegetable Physiology and Entomology.
4. One of Vetenrinary Surgery including the Anatomy and Physiology of domestic animals.
5. One of Practical Horticulture, Fruit and Arbor-culture.
6. One of Practical agriculture and farm economy.

A smaller educational force than the above will be too feeble, and must work at great disadvantage. Instead of diminishing it, we should prefer to add a professorship of mathematics with a view to teach practical surveying, teh plotting and mapping fields, bevelling for drains, &c. A professorship of modern languages would also be useful.

It has been found necessary to divide the labor of theaching the Healing Art among six or seven professors in all the medical schools of the United States. Having been regularly through one of these doctor factories, we speak understandingly when we say that, as much science, learning and study are required to form a thoroughly educated farmer as to make a thoroughly educated physician and surgeon. Now, we do not propose to force the study of any branch of natural science upon the young men who are to follow the profession of agriculture through life. Those that prefer ignorance to knowledge, poverty to competence, need have no fears that *they* will not be permitted to enjoy their tastes and their predilections. All we desire is, that so many as wish to become familiar with the laws of nature, which govern the improvement and deterioration of soils, the improvement and deterioration of cultivated plants and domestic animals, and the improvement and deterioration of *men*, shall have a fair opportunity to gratify so laudable a desire.

There are so many seekers after information of the character named, that no one school can do more than prepare well qualified teachers of the various sciences most intimately connected with agriculture and rural economy, to be employed in the great State of New York. It is a capital mistake to suppose that any graduate of a literary or medical college can teach successfully agricultural geology and chemistry, comparative anatomy and meteorology — not to name the practical part of the farmer's profession. To qualify a person to teach any art or any science, it is indispensable that he shall have studied it long and well, and have experience in its practical details. It is an imposition for one to assume to communicate information on any subject to others, of which he is himself ignorant. A studious person who provides himself with suitable books may master in time almost any science, without the aid of any other instruction. This however, is far from being the easiest way; but it is better than to remain in profound ignorance of useful sciences and valuable arts.

That young men have the capacity to improve themselves, as well as the soil and its vegetable and animal products, it is now too late to deny. Let us then give them the best chance for obtaining useful knowledge, in our power. This is doing no more than our *duty*. If they neglect, or abuse the opportunities proffered, as some will, the fault will be their's, not that of the community nor of its Legislature. Thousands will enter with zeal and success into the study and practice of this new profession. They will elevate the calling of the American husbandman to an equality with any other, for high mental attainments. This alone will secure to the farmers of the country a fair proportion of seats in Congress and other legislative bodies, as compared with their respective numbers in the State and Union. Friends! it will not do, in this go-ahead, pushing age of the world to stand stll in the furrow —"to put your hands to the plow, and look back." "Onward and upward" should be our motto. Not to lose an hour in the winter evenings, already commenced, add a few new books to your agricultural library. If you have not Hitchcock's Geology; Johnston's Agricultural Chemistry; Boussingault's Rural Economy; Allen's Farm Book; nor the Back Volumes of the Genesee Farmer, you can not do better than to purchase these works for yourself and family to read. Every farmer worth $1000 should have professional books worth $50; and every one worth $2000, should have a well selected library worth $100. Remember that knowledge is power, ignorance weakness, and act accordingly. Do not deny your children invaluable opportunities for intellectual culture, in order to save a few dollars for show, or some other use of infinitely less moment than a good education. There is something better than gold, and society will certainly find it out. Every year increases our means for improvement. Every year strengthens the influence of cultivated intellect, and the power of mind over matter. We should be watchful of the signs of the times, and work skilfully while the day lasts.

PATENT OFFICE AGRICULTURAL REPORT.

The senior editor of this paper has consented to take charge of the Agricultural matters in the Patent Office, and prepare a Report to Congress at its approaching session. To favor this undertaking he respectfully solicits information on all topics appropriate for such a document, and particularly in reference to the inland commerce of the country. The movement of agricultural products on lakes, rivers, canals and railways is a subject of interest to all intelligent farmers and business men.

Crude guessing in regard to the quantity of grain and other crops grown in the current year, can possess but little value a few months in advance of the U. S. Census, so soon to be taken. Improvement in the practice, and progress in the science of agriculture are objects of great moment at this particular time. The public mind is now more engaged in the work of improving lands, and educating young men not less thoroughly to be farmers than doctors or lawyers are professionally educated, than at any earlier period. Thousands begin to appreciate the fact that, no limited piece of earth can possibly contain an unlimited quantity of the atoms necessary to form good crops of grain, cotton, tobacco or potatoes. The elements of bread and meat in any given soil or field being quite limited, the waste of these elements, when extended over many millions of acres, becomes a matter of paramount national importance. That the quantity of atoms in every cubic foot of soil or earth which can be transformed into wheat, is uniform or alike in all cases, no observing farmer can for a moment believe. If this were the case, then all soils should be alike productive of this valuable crop.

Different soils of varying fertility, possess equally varying amounts of the available constituents of all cultivated plants. If the supply of raw material for making all crops is really inexhaustible, why should any man ever be at the trouble and expense of hauling manure, or of purchasing lime, ashes, gypsum or guano? The use of fertilizers tells the whole story—that the elements of bread and meat may be used up—wasted—utterly lost to the husbandman and the world. How much has been lost to the country since the beginning of the present century? Who can tell?

Great complaint is made by persons belonging to the American navy of the defective manner in which beef, pork and butter are put up for consumption in tropical climates in this country. The navies of European nations are supplied with these perishable commodities in a condition to keep under the equator much longer and better than similar articles made in the United States. This defect is not creditable to American skill in curing meat, butter and cheese. Nor is the preservation of breadstuffs so generally understood as is desirable.

Information on these and other subjects is sought not only at home, but from foreign nations with whom we have commercial and diplomatic intercourse. The collection and diffusion of useful knowledge in the cheapest possible form, are labors in which many can participate.

Should not the young men of America be reminded of their duty in this connection? Look on the broad surface of the Union, and mark the millions of acres of native forests which have fallen and disappeared at the approach of the woodman and his axe. The continued toil of the farmer has dug from the virgin earth nearly the whole wealth of the country. If no damage had been done to the lands under cultivation, our admiration of the industry, enterprise and success with which they have been plowed, hoed and harvested, would be unmingled with regret. But, unfortunately, many millions of acres of American soil have suffered incalculable, if not irreparable injury. The economical renovation of partially exhausted fields; and the cheap improvement of all farming lands that need it, are objects to which much time and study may be profitably devoted.

A Word to Subscribers and Friends.—The publication of the Genesee Farmer will be continued at the old office, in Talman Block, Buffalo-street; and be printed on the same press as heretofore. To prevent mistakes, all persons wishing to renew their subscription, or do any business with the office, should be careful to address: "Daniel Lee, *Publisher of the Genesee Farmer, Rochester, N. Y.*"

Garlick.—To eradicate Garlick or Wild Onion, Mr. Beckwith writes to the Albany Cultivator to the following effect:—"I have adopted a rotation of summer cropping; say, one year corn, next potatoes, next oats, with clover seed, seeding pretty heavily, and plastering the clover. Let it lie one year—then repeat the same course. I had a field very full which I treated as above mentioned, and at the end of the second year the plant had entirely disappeared."

THE PHILOSOPHY OF TILLAGE.

BY DANIEL LEE, M. D.

[*Continued from November number, page* 254.]

Having shown the tendency of the organic elements of crops to escape into the atmosphere by tillage, let us now see in what way they are lost by leaching, in connection with the inorganic elements of plants. This done, we shall be prepared to consider the best ways and means to prevent loss in either direction. The end aimed at is, to accumulate good bread and meat in the soil, like gold in the mint ready to be coined, a little faster than children multiply and come from Europe, to be fed.

The most abundant mineral in the earth is flint or silica, which forms sand and will melt into glass if pure,—an operation that is promoted by the combination of potash, soda or lime. Silica constitutes an important element in the stems of all cereals like wheat, rye, oats, corn, &c. Pure silicious sand is remarkable for its insolubility. It is in truth an acid formed by the union of 52 parts of oxygen with 48 of an earthy base called silicon. This acid combines chemically with alumina; which is the next most abudant mineral in nature, being the basis of clay. Silicic acid also unites with iron, lime, potash, soda and magnesia. Having a weak affinity for these alkalies, and alkaline earth, carbonic acid in water from decaying mould, vegetables or manure, attacks the insoluble silicates of potash and soda, and forms carbonates of those alkalies. These, like pearlash, are very soluble; and what is particularly worthy of note, they are capable of dissolving silica. Thus if we boil finely powdered glass, which is an insoluble silicate, a strong solution of potash, or of potash and soda, the glass will be dissolved, and may be applied to the roots of corn or wheat in a way to enter their roots and go to make the hard glassy covering on the stems of those plants. It is curious that these soluable silicates which contain an excess of the alkali should be changed into insoluble silicates of potash or soda in nature's laboratory within plants, by separating potash or soda from the silica deposited in the cuticle. The potash so liberated returns to the soil and there dissolves more of the flint needed to impart strength to the stem of the plant; precisely as bones enable animals to stand up on the earth.

It is worthy of remark in this connection, that many soils which abound in sand, as in parts of Maryland, Virginia, North and South Carolina and Georgia, lack even the insoluble silicates of potash, soda, magnesia and lime, to a degree. To such soils, it is desirable to apply not only ashes, leached or unleached, but forest leaves and such vegetable substances as abound in potash, as well as the other earthy food of cultivated plants. Thus 100 lbs. of corn cobs will, as they rot, yield more potash to a soil than a like weight of buckwheat straw. Indeed, the component parts of all fertilizers, and of all crops, should be generally understood by husbandmen. A vast amount of labor is wasted in gathering poor or defective fertilizers, where good ones might be obtained at a much cheaper rate. I have briefly alluded to nitrogen, sulphur, phosphorus and chlorine as volatile constituents of vegetable and animal substances, which combined with hydrogen at the time organic bodies decay, rise into the atmosphere. They deserve a short notice as fixed mineral acids in rocks and earths.

When forty parts by weight of oxygen combine chemically with fourteen of nitrogen, fifty-four parts of *aqua fortis* (nitric acid) are produced. This acid combined with potash makes salt petre, or nitrate of potash. This salt, as well as nitrate of soda, are involatile; and both are found in considerable quantities in hot climates, where vgetetation grows luxuriantly, and rots as rapidly. It is believed by chemists that electricity in thunder-clouds often serves to combine the oxygen and nitrogen of the air in proportions to form nitric acid, which falls to the earth in rains. Compounds of this acid are quite soluble, and in all well drained soils, nitre and all nitrates are prone to be washed away.

Twenty-four parts of oxygen combine chemically with sixteen of sulphur, and make forty of sulphuric acid, or oil of vitriol. Unlike nitric acid, this exists in granitic and other rocks, as well as the common loose earths. Its salts are very numerous. Combined with alumina and potash, it forms alum; with iron it produces copperas; with soda it gives glauber salts; with magnesia, epsom salts; with copper, blue vitriol; with zinc, white vitriol; and with lime, gypsum. The sulphate of lime, or plaster of Paris, being less soluble than the other compounds of sulphuric acid, we usually find more of this mineral in soils,—especially such as are properly drained,—than alum, copperas, glauber or epsom salts. *Sulphur* being an indispensable element in all crops and all flesh, I attribute the value of gypsum mainly to the sulphur which it yields to clover, peas wheat and other cultivated plants. In 100 lbs. of wool or hair, there are five of pure sulphur. If the food consumed by sheep and other animals, contained not an atom of this ingredient, how could their wool, hair, muscles, brains and nerves all abound in this element? Minerals that contain sulphur should be well husbanded. All sulphates are involatile; but most of them are extremely soluble.

Five atoms of oxygen combine chemically with one of phosphorus to make an atom of phosphoric acid. The atomic number of phosphorus is not clearly settled; some chemists making it 31.4, and others only half that number.

Phosphoric acid exists in earths as a phosphate of alumina, iron, lime, magnesia, soda and potash, and often as double salts. Some of these salts are quite soluble,—others not. The phosphate of lime, or bone-earth, is the most important. Suppose nature should organize crops of grass, grain, potatoes, and all the plants which we harvest, as well without a particle of bone-earth as with it? Living on bread, milk, and other food alike devoid of this dissolved mineral, phosphate of lime, which *alone can make bone*, no child could have a bone in its body. I desire to impress on the mind of the reader this truth: a kind and all-wise Providence does not premit cereal and other plants used as food for man and the higher classes of animals, to grow one degree beyond the supply of bone-earth in the soil. Such food would be worse than useless. If animals fail to find their proper nutriment in one place, God gives them power of locomotion to walk, fly or swim to another place, and seek for it there. But upon a stalk of corn has organized a cob and a few kernels at its base, if the stock of raw material fails, no more kernels can possibly grow. If they did, and lacked the elements that a pig must have to form bone, brain and flesh, it would be mighty poor corn for pigs or children to eat for bodily nourishment.

In 100 pounds of dry common salt there are about 60 pounds of chlorine. When free, it is a heavy, green, and very pungent gas. Some 36 parts of this combined with one of hydrogen, form in water, muriatic acid, or hydro-chloric acid, as it is now more commonly called. As a class of minerals, the chlorides or muriates are very soluble, like the chloride of sodium, or common salt. They do not abound in soils. Common salt has been used as a fertilizer some three thousand years—both soda and chlorine entering into the composition of all or nearly all crops. Most quadrupeds are extremely fond of salt; and all civilized people season their daily food with it. It is curious that potatoes and wheat cannot be salted enough while growing; and that no degree of salting a fatting steer will suffice, so that a little added to a fresh steak will not be an improvement. "Ye are the *salt* of the earth," has not less an agricultural, than a moral meaning.

With regard to the value of lime, magnesia, potash, soda, and iron, in organising cultivated plants, perhaps nothing need be said. I have never analyzed a soil that lacked iron; like silica, iron is not always in a soluble and available form. The practical farmer should understand, that such constituents of plants as are always soluble, a few year's tillage and fair drainage render scarce; and such as are ordinarily insoluble, without the aid of decomposing mould or vegetables, cease in a great degree to yield their nutritive atoms to famishing crops. Bear in mind that between forty and fifty cubic inches of water fall on every square inch of surface in the course of twelve months. If the ground has been cultivated, and really contains the food of plants in a soluble condition, this water will of course dissolve alike the organic and inorganic elements of vegetables. I have frequently washed from ten to fifty pounds of soil in pure rain water as it falls from the clouds, and then filtered and evaporated the water to see what substances were held in solution. I have never failed to get both combustible and incombustible elements, and often nearly equal parts of each. By leaching fifty pounds of soil a few weeks with warm rain water, and then analyzing the matter dissolved out, one can judge with some confidence of its defects and productiveness.

In studying the various processes by which the fertility of a cultivated field becomes impaired, I have been led to believe that much depends on the proportion of the water that evaporates on the earth where it falls, and that which runs off, either on the surface or under it, into springs and rivulets, to form creeks and rivers. Deeply tilled land will absorb twice as much rain water as shallow tilled will; and the former will retain twice as much to carry the crop through a drouth, for evaporation at the surface of its numerous leaves, as will the latter. But most of the cultivated lands in the United States are neither tilled *deeply*, nor uniformly covered with *growing* vegetation, to absorb and fix in its tissues the dissolved food of plants.

The more a soil is stirred with the hoe, cultivator, or plow, the faster the elements of crops are set free by chemical action, and will be lost by solar evaporation, washing and leaching, if such elements are not taken up by growing plants and retained in them. Berzelius found two organic acids in clear spring water, to which he gave the names of "crenic," and "apocrenic," from *krene*, the Greek for a "spring." River water always contains both the organic and inorganic food of plants. The quantity of the fertilizing atoms which is wasted in the planting States, is infinitely larger than one man in a thousand ever suspects. As a similar waste prevails at the North, only much less in extent, I desire to give a clear exposition of my views on this, the practical part of my theme.

Although both cotton and corn are planted early, and often gathered late at the South, yet cotton and corn plants do not gain much in weight beyond four months for the former and three months for the latter. During the first four or five weeks after the seeds germinate, the young plants are too small to imbibe any considerable quantity of nutritive matter of any kind, from the soil. As they approach maturity, they gain less and less in weight, and of course abstract less and less fertilizing matter from the earth or atmosphere. During the past season I have watched with lively interest, the organization or growth of corn which yielded from five up to fifty bushels per acre. If I express the opinion that a crop of five bushels exhausted the soil about as much as one of fifty, some will esteem the remark about as sensible as to say that five sheep will eat as much food as fifty. The cases are not parallel. If a crop of corn, equal to the production of five bushels per acre, does not exhaust the soil as much as it would if ten times larger, the only reason that can be assigned is, that the elements of corn plants are in truth not present in the sterile earth, to be removed. On poor land it is found necessary to give each stalk three times more surface of earth to imbibe nourishment from, than on good land. When there is but a single plant to twenty-four square feet of surface, and that plant a very small one, my impression is that even during the period when it grows the fastest, it fails to take in at its few small roots, more than a third of the available atoms evolved by the decay of the organic and the solution of earthy food of the plant, within the square which it occupies. I will not say that all the gases and earthy salts derived from rotting mould and vegetables, and from dissolved lime, potash, soda and magnesia, which fail to enter the corn plant, are lost. But this I will say, that I see no reason to doubt the loss of most of these volatile and liquid atoms. I would about as soon have a field cropped ten years, and all the corn or cotton entirely removed, root and branch, as to have it well plowed and hoed ten years, and no vegetable whatever premitted to organize carbon, nitrogen, and the elements of water, and the minerals which form the ashes of corn, cotton, and wheat, in the field.

There are some seven millions of acres planted in cotton in the United States, every year. As the plant is little used to feed domestic animals, and most of its seeds are returned, after rotting, as manure, no crop should injure the soil so little. But the clean culture, and long tillage which it demands, make it the most exhausting crop that is grown in the Southern States. As now cultivated, it wastes three times more food than it eats. And such is my judgment in regard to not a little of the corn and tobacco culture which I have seen. I come now to the consideration of preventives and remedies.

To save from waste and loss the constituents of bread and meat, as they are eliminated by tillage, *they should be immediately organized in some living vegetable.* This is the process employed by Nature to renovate soils that have been impoverished by unwise cultivation, or by other means. It is the only way in which a soil can be made to increase in fertility, without adding fertilizers from elsewhere to it. Much has been written on the subject of renovating poor lands, which have been injured by excessive cropping, and improving such as are naturally defective, the subject is very little understood. I have in my eye an old field which was scratched with the "bull tongue" plow and the hoe, a little longer than any crop would grow, and till its surface was as bare the year round, as the desert of Sahara. A thin, spindling grass, a few stunted weeds and young pines, have begun the work of making a new soil on this sterile waste. In this natural process of renovation, the *pine* is the king of plants. Nature has provided its seed with an apparatus which serves the the same office performed by the down on the seed of thistles; *i. e.*, to enable it to be borne a great distance by winds in all directions. The seed of the pine no sooner germinates, than it extends its small tap root deep into the ground, in search of a very little of the alkalies and alkaline earths, without which it can not organize carbon and the elements of water into woody fibre. Supplied at first with two green leaves and a small root, and mainly from nutriment stored up in the parent seed, it is prepared to perform the legitimate functions of all growing plants, viz: to decompose carbonic acid and water by the aid of solar light, and with a little available nitrogen, potash, etc., to organize its tissues and gain in weight and substance. In forming ten pounds of common pine wood, nature deposits in its tissues, and consumes from the earth, not more soluble salts, or *ashes*, than can be got from a single pipe full of tobacco. And yet, wonderfull to tell, I find four per cent of ash in the dry leaf of the long-leaf pine. But all these numerous and weighty leaves annually fall on the surface of the ground, to rot and form——what? Why, a *mould*, rich in organized carbon; rich in salts of lime, potash and magnesia; the former taken from the atmosphere, and the latter from the subsoil.

Here is the first letter of the alphabet in the science and the philosophy of accumulating bread and meat in the surface soil. Study the ways of Providence; wisely imitate His example, and a barren plain can be converted into a fruitful garden. The pine is an evergreen, and grows the year round.

The first thing I did when I came to Georgia, a year and a half ago, and saw the extreme nakedness of the land, was to reccommend the seeding with rye, at the last plowing in cornfields, or soon after the crop ceases to grow, with a view to have this winter plant gather up from August till March, whatever available atoms might be within reach of its roots and leaves. As the earth does not freeze, and heavy, washing rains fall in winter, "the fat of the land" is largely consumed, and is either lost, like a burned candle, in the atmosphere, or carried like water from a dung heap, into ditches and "branches." Barley, oats, and wheat, all do well here sown in November or December. It is now the 6th of February, 1849, and I have this day seen a field of oats which has been cut in part for soiling, for some weeks. Another in barley, is so stout as to fall down or lodge.

Winter pastures of rye are very valuable for stock of all kinds, although there are some clayey soils that the treading of cattle and sheep injures.

Acting on my theory of keeping the earth always covered with some growing vegetatien, Mr. M. B. Moore, of this city, (Augusta) raised last season 34½ bushels of wheat from one of seed, which was harvested about the 20th of May; then a crop of hay, equal to a ton and a half to the acre, which was mown in August; and then a crop of peas which was harvested in November; all from the same land. The land is now in wheat, to be harvested in May next, as before. There is no difficulty in growing three crops of small grain in a year at the South, if one is cut green for hay, as oats, peas, barley and rye are often cut. To enrich the soil, I assume that the manure derived from both the grain and straw, or of the green crops is all carefully saved and duly applied to the land. As about 60 per cent. of the hay and other food eaten by a cow, sheep or horse, is lost in vapor and carbonic acid, thrown out of the lungs in the process of breathing, and through the pores of the skin in insensible perspiration, one will increase organic matter in a poor soil much faster to plow in clover, peas, timothy and rye, than to feed these to domestic animals, and apply all their excretions to the land.

I am well aware that clover has long been used in connection with wheat culture, to enrich cultivated earth. It was a knowledge of this that led me to believe that to sow rye in corn, potato and oat fields in autumn, to be plowed in for the feeding of the next summer crop, would be useful any where, north or south. I find that a kernel of rye will organise from October till the first of April, a plant which when dry, will weigh 100 times more than the parent seed. I call this gain of 99 parts for one, cheap manure, which is already evenly spread over the rye field, and ready for the plow in the spring. A man's farm is in truth a chemical laboratory; and he should study to turn the frosts of winter, the sunshine of summer, the rains of spring and the dews of autumn, to the best possible advantage. Very late plowing to freeze compact earths, and very early seeding, are worthy of attention at the North. I am in favor of pretty thick seeding and planting, partly as a better covering and protection to the soil, and partly because I have generally found the best practical farmers to concur in recommending it. Under our present exhausting system of tillage, there is far more land under the plow in the United States than is really desirable or profitable. The correction of the evil of running over a great deal of surface to produce a little corn, wheat, cotton or tobacco, is not to be expected during the life-time of the present generation. Boys may be made to understand that it is much cheaper to make 500 bushels of corn on ten than on one hundred acres; but few men forty years old that practice the exhausting system now, will ever pursue any other. Talk to them about carbon and the subsoil, and they will soon fill both ears with cotton. Persons twenty years younger, are generally willing to learn why 100 lbs. of pea vines will make richer vegetable mould than a like weight of bullrushes. Seeing that an acre of tilled soil, which gives but 15 bushels of corn, has the same sunshine, and an equal amount of rain and of atmospheric gases that fall upon an acre that yields 60 bushels, young men will study closely the slight difference in the two soils in their mechanical texture, the solubility of their fertilising atoms, and in the abundance or scarcity of each constituent element. If *tillage, as an art*, was all that is required to give abundant harvests, then equal culture should be followed by equal crops on fields that produce, the one five and the other fifty bushels per acre. No uniformity and thoroughness of tilth can work a uniformity in the growth of plants in soils that unequally abound in the precise things demanded by nature to organise the crop. To aid in decomposing insoluble silicates of potash, and in evolving sulphates, phosphates and chlorides in compact, impervious clay, I have seen no one mineral operate better than lime. This is coming into pretty general use at the South to facilitate the renovation or improvement of old plantations. Gov. Hammon, who plants a few miles below Augusta, on the South Carolina side of the Savannah river, has used over 200,000 bushels of unburnt shell lime within the last ten years. I have witnessed its effects the past season with surprise. On well drained swamp lands, its use is most marked and auspicious; although it is serviceable on dry uplands. Thorough draining is an indispensable preliminary to the improvement of ground that needs it. One man has twenty miles of ditches on his farm near this city. Peas are largely used to enrich land, by turning them under with the plow when in blossom. Deep plowing and subsoiling are gaining in the public esteem every month. Domestic animals are fed and kept much under shelter by skilful farmers, in order to save all their liquid and solid droppings from waste by solar evaporation and leaching by rains. Cow yards in the State of New-York often sustain a great loss of the fertilizing elements in manure.

Good husbandry implies the faithful husbanding of all the elements of bread, milk and meat in every change of form which these atoms undergo. Man is incapable of creating one new atom, or of making an atom of sulphur perform the function of an atom of phosphorus, or one of phosphorus do the duty of an atom of lime or silica. If one-third of the land that has been cleared of its native forest was back in woods again, and the other two-thirds cultivated in strict obedience to well known natural laws, the rural industry in the United States would yield a quarter more than it now does. It is impossible, while attempting to go over so much surface, not to waste valuable elements of crops at every turn on the farm. Land in pasture and meadow loses fertilizers far less than plowed fields, unless the latter are managed with skill in abstracting the constituents of plants from the subsoil and atmosphere, as well as from the surface soil. Wood ashes, both leached and unleached, bones, and the contents of the vaults of privies, should be worked up in compost heaps, pounding the bones and applying muck next to unleached ashes, so that the alkalies will neutralize the acidity of the vegetable matter. Cover rotting manure in plowing about as deep as you would a dead cat, to prevent the gases from escaping into the air. If you cover the carcass of the animal with coarse lumps of earth, it will smell badly; but pulverise these lumps fine, and the mellow earth will condense and retain the volatile atoms of the decaying cat. Take the hint and pulverise your soil deep and well, that moisture from below may rise freely, and gases and moisture from above desend without undue hindrance.

* * *

The whole population of the world—"a thousand millions of men are dependent for their very sustenance," upon the productions of the earth. Two hundred millions, probably, expend their daily toil in pursuits closely connected with the operations of agriculture,—the parent, and precursor, and most important, of all other arts.

* * *

A Cheese was exhibited at the New York State Agricultural Fair, made from one day's milk of 600 cows, by A. E. Austin, Austinburg, Ashtabula Co., Ohio, which weighed 2000 pounds.

SALTING STOCK.

Messrs. Editors:—This subject has been broached without much real effect. An article was first adduced, (page 127, vol.9,) on the impropriety of Salting Swine. The same article was remarked upon by a correspondent of the Louisville Journal, signed G., (page 247, same vol.) G. continues the subject further, questioning the propriety of salting stock in general. I have been patiently waiting a length of time, hoping that some of our practical and scientific farmers would comply with G.'s request and give us the benefit of their results.* But as two or three numbers of the Farmer are at hand since G.'s article of submission, and nothing further upon the subject, I take the liberty to offer a few remarks upon the same.

Salt, is beneficial to stock—for which reason I give it, and would recommend it pretty freely, yet reasonably.

1. When given satisfactory to milch cows salt adds to the properties of their milk, either for butter or cheese. 2. Salt operates upon stock to their healthfulness, by loosening their order of digestion at times when their food is not of that nature, by helping to effect the purification of their blood—thus perhaps alleviating some internal or external disease—by strengthening and invigorating the whole nervous and general system. Of this last item salt operates with the same effect upon both horses and sheep. These conclusions I gained not from my neighbors, but from experience, the sciences, and common sense.

Having given a synopsis of the nature and effect of salt upon stock, I shall proceed to recommend the same as follows: To every ton of hay (when secured,) add 2 quarts of salt. To milch cows let salt lay sparingly in troughs, or boxes before them; also, the same supply for horses in the harness. To a full grown span, or store cattle, give half a pint per head each week. To other stock smaller proportionably.

Of sheep—probably there is no animal that realizes the good effect of salt more than this very kind. It delights me to visit a flock of sheep after a cold storm, or drenching shower, and administer to their seeming wants, a dose of salt. It truly does revive their drooping spirits, and give them energy, by adding strength to their nervous and general system. I have sometimes found on very cold mornings, young lambs so chilled and benumbed with the cold that they could not stand, and apparently were quite lifeless, when by putting a spoonfull of salt in their mouths and leaving them, would, in the course of one hour, find them so revived, that oftentimes I could not catch them. Those who raise sheep can try this experiment and they will see the good effects of salt. Sheep should have one gill of salt per head a week, in fair weather, and should always be salted after a storm or drenching shower. If our wool growers would salt often and freely after shearing, their sheep would brave the change with a better degree of health and strength, particularly if very cold weather followed.

Connected with this subject I have one more suggestion to make, that is—pure water should always be at the option of all animals that are salted. L. E. B.—*East Bloomfield, N. Y,* 1849.

Remark.—The above was received nearly a year ago; but, being reserved for publication at a more appropriate season, has been overlooked until the present time.

SCIENCE AND PRACTICE IN FARMING.

BY WILLIAM GARBUTT.

Messrs. Editors: — The exhibit at the State Fair was a cheering prospect for the improvement of agriculture. Let public opinion patronize the plow, and the cultivators of the soil will increase their diligence, the scientific man will enlighten their path, the earth will increase its bountiful productions, the comforts of life be increased, social and rational happiness extended, and peace and plenty abound. But these are themes for the barrister and the poet. To settle facts tested by experience, is the proper sphere for the cultivators of the soil.

Science has done much, and yet has much to do for the improvement of Agriculture, but the practical operator must not depend too much on the man of science for his knowledge; he must think, examine and judge for himself, and test by experience the numerous results which have to direct him in his various operations. As our distinguished visitor truly says —"it is only on a basis of often repeated, skillfully conducted, and faithfully recorded experiments, that true theories can ever be successfully built up; hence the importance of experiments in practical agriculture."

The chemist can give valuable suggestions, but the farmer must settle their general result by experience. The time was when it was not known that a tool could be made of iron and steel that would cut stone or even wood; and when the suggestion was made it was of immense value; but the blacksmith had yet to learn to make the axe, and each operator has to learn for himself; and it is equally so with science and the cultivators. The scientific man can enlighten the farmer's path, but the latter must judge for himself which is the best road to travel. Hence the importance of each farmer being an experimenter, and each one's farm an experimental one. No intellegent cultivator ought to allow a season to pass without testing carefully some of the various operations of his multifarious pursuits; and it can easily be done without incurring much expense, for a half or a quarter of an acre is sufficient to test an experiment, if it is performed with care, and close observation.

Our fields are generally cultivated in ridges of equal width; and how easily can a farmer test the value of various manures, by applying the fermented and unfermented, the compost or pure barnyard manure, or any of the numerous fertilizers, on different ridges in the same field? And also test the various modes of cultivation; let one ridge be plowed only once, and the after culture be done with the cultivator and harrow; another ridge plow twice, and a third one three times—and with equal care he can ascertain the quantity of seed that is best to apply, together with the relative value of the numerous varieties of each kind of grain. But he must be attentive, and watch carefully the operation of all his experiments; and ascertain the result with accurate certainty—*not guess at it.*

All experiments ought to be continued for a series of years in succession, for once trying is not a sufficient test, even to a *probability*, so numerous and various are the causes which affect the productions of the soil—causes, too, which are beyond the control of the cultivator, so that he cannot always know how much reward he will receive for his labor. A great proportion of the very bountiful crops that are recorded, are the result of circumstances, which the cultivator cannot foresee, nor control, and are not a fair exhibit of the farmer's skill or good management. For instance, A. sows a piece of ground with wheat, which is very rich. His neighbor B., sows a piece that is very poor. The season is very vegetative, which makes A.'s rich ground produce a tremendous growth of straw, but little wheat; and B.'s poor ground yields a middling crop. But had the season been the reverse, a cold unproductive one, A.'s wheat would have been a bountiful crop, and B.'s nothing. And so it is with all our productions, to a certain extent. There is an adaptation in the fertility of the soil to the productiveness of the seasons—or rather the adaptation of the vegetativeness of the season to the richness of the soil—which is the cause of those occasional wonderful crops, (and is frequently a severe tax on the credulity of the plow-holders,) so that it is necessary in testing experiments to continue them for a series of years, to enable us to arrive at any degree of certainty. And it is equally necessary to have a statement of a farmer's average crops for a number of years, to enable us to judge correctly of his skill as a cultivator, and the value of his practice, or the profit of his farm.—*Wheatland, N. Y., Oct.*, 1849.

MORE LIGHT WANTED.

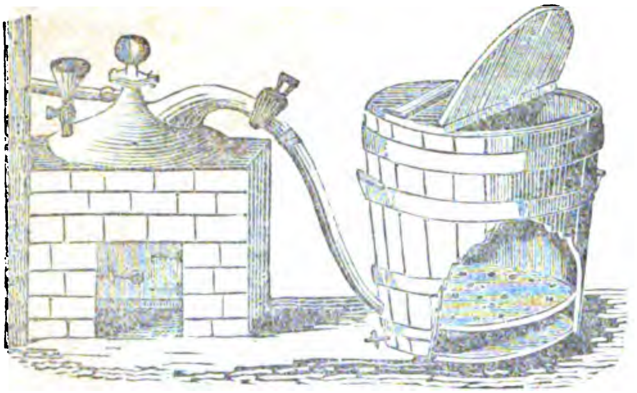
Messrs. Editors:—In the October number of the Genesee Farmer was a communication from Caledonia, giving the products of ninety-six acres of improved land in that town. He states that when the farm was bought, some two years since there was 85 acres of wheat on the ground, the sale of which, after reserving 170 bushels for seed and bread, amounted to $2,593 73. The sale of barley, wool and fat sheep the same year amounted to $167 62. The second year he harvested 70 acres wheat, which yielded 2190½ bushels. He likewise sold 450½ bushels barley, 100 bushels corn, and 332 pounds wool. The same year he sowed 80 acres of wheat. Now the inquiry is, what was the system of rotation?—how much stock he kept, and the number of acres in grass and root crops? Likewise how much ground was occupied by his buildings and garden? saying nothing about what may be occupied by roads and fences. Full and minute details of his system of farming might satisfy the doubts of incredulous

Ridgeway.

PEAR TREE BLIGHT.

The "*Young Digger*" in your November number has attacked correspondents innumerable, who by observation and experience have been endeavoring to find the causes of Potato Disease, Fungus on plum trees, and "last, though not least," Blight on Pear Trees—and he has concluded himself to be for a youngster a "*very sage.*"

Would that he could tell us something preventive of the Blight in Pear Trees. That is what I am after. His criticisms may pass for what they are worth. It is no small satisfaction to me that Mr. Barry, your able coadjutor was willing to notice my article on "*Pear Blight*" and also to find many *old diggers* to say that in the main I was right in my ideas of the cause and remedies for it. Perhaps the blight will cease after his year—I trust so, then the Young Digger can ponder on something else. I will leave him with the "potato rot." James H. Watts. *Rochester, Nov.*, 1849.



STEAMER.—COOKING FOOD FOR STOCK.

The following remarks in reference to the plan of steamer above represented, and cooking food generally, are taken from the American Agriculturist:

"If food is to be cooked, on a small scale, boiling may be cheapest; if on a large scale; steaming is not only cheapest, but infinitely more compaet; for the former would require a very large, or several furnaces, for different sets of kettles, whereas, the latter may be done with one small furnace, steamer, and pipe, as shown in the cut, with any reasonable number of vats or tubs surrounding, in which to steam the food. In order to do this, the steam pipe must be made moveable, with a screw, flexible, or be composed of some material that when the food is cooked in one tub, the pipe can be turned and inserted into another. We have seen no less than five tubs, holding 150 gallons each, surrounding a small steamer, all of which could be filled with food and cooked within twenty-four hours. Three tubs, however, are usualy sufficient for a large stock, in which the food of the first may be cooking, that in the second cooling, while that in the third is being fed out. A single person may be able to oversee, and efficiently manage all these operations.

The furnace, steamer, and tub, are so plainly delineated in the above cut, that they need no explanation. In cooking potatoes and other roots, the tub should have a false bottom (as represented,) perforated with numerous small holes, and set resting on blocks from 3 to 4 inches above the true bottom. The steam-pipe should enter the tub nearest to the true bottom. The steam is thus introduced between the two bottoms, quickly rises upward, and is evenly diffused through the whole of the food. While the cooking process is going on, the top of the tub should be kept down as tight as possible, so as to prevent the escape of any steam. In cooking grain or meal. the false bottom must be taken out and the tub filled with water, as the steam heats the water and brings it to a boiling point as readily as a blaze or hot coals around a kettle.

Steaming is said to do its work more thoroughly than boiling, as it is so insinuating, it easily enters and bursts all the minute globules in the grain and vegetables. Be this as it may, certain it is, that either process renders the food more digestible, and easier assimilated by the absorbing vessels, and therefore more economical.

The following table in the Edinburgh Journal of Agriculture, shows very nearly the increase of bulk of different kinds of grain boiled to bursting:

4	meas. of	oats increased to	7	meas.
4	"	barley "	10	"
4	"	Indian corn increased to	13	"
4	"	wheat "	10	"
4	"	rye "	15	"
4	"	beans "	8¼	"
4	"	buck wheat or bran	14	"

Boiled food, especially in winter, is much more nutritious, if fed as nearly blood warm as possible. If quite cold, or above all, if in the least degree frozen, we doubt wether it is so beneficial as if uncooked—grain and meal we are certain are not; for animals will eat the raw, cold, more greedily than they will the cooked. Stock fed upon cooked food will eat more of it than if uncooked, and lie quicker to rest. Of course all this is better for them, as they will thrive faster, look finer, and do more work. It is particularly beneficial to give hard-working horses or oxen, just as much wholesome cooked food, as they can eat, soon after coming in at night. Toiling all day in the open air, man apreciates and knows well the benefit of a warm, hearty supper. Let him remember, then, that a warm mess and abundance of it, is equally beneficial to the animals which a kind Providence has given him as efficient aids in his arduous labor. If southern planters also would give their mules cooked instead of raw food, at noon and night, we are persuaded it would put an end to the colic, so often destructive among them. Cooking would also considerably economize the food."

SALT FOR SWINE.

Eds. Gen. Farmer:—I notice that some of your correspondents doubt the propriety of giving salt to hogs—some going so far as to imagine that it will kill them. This does not accord with my experience. My hogs get salt in their slop while pigs, salt once a week while grazing on clover during the season previous to fattening in the fall, and after they are put up to feed, salt twice a week till driven off. None of them die or are made sick by it. On the contrary, I notice that they eat corn for a while, then go and take a little salt, then a little water, and back to the corn again.

If hogs are not accustomed to the use of salt it will make them vomit once or twice at first, but this does them no harm. Salt them regularly, a dessert spoonfull to the hog twice a week, and a table spoonfull or two of wood ashes, unleached, and they will more than pay for the trouble and expense. L. M.
Bourbon Co., Ky., Oct., 1849.

Galls from Harness or Saddle.—"A Volunteer" tells the New England Farmer that the following remedy was found to be invaluable in the fatigueing marches in Mexico:

White lead, finely pulverized, is the most effective application. Rubbed on dry, or made into a paste with milk, and applied a few times; it will also prevent white hairs growing on galled places.

To Cure Bloating or Hoven in Cattle.—A table spoonful of spirits of hartshorn, for an ox or cow, or a teaspoonful for a sheep, will afford instantaneous relief. It should be diluted with water or milk. It acts by decomposing the gas generated in the stomach, which is the cause of the disease.

MODEL LETTERS.

Among the various *models* offered to the public "about these days," we beg to contribute our mite for the benefit and edification of all interested. Our object in giving the annexed Letters, which are certainly models of taste and brevity, is two-fold. First to present those who wish to "go and do likewise" with an excellent example—and secondly, to assure all such that we can promptly fill, and shall be most happy to receive similar orders for back volumes of the Genesee Farmer. The valuable reading and instruction on Agriculture and kindred subjects, embraced in the five voluumes of the Farmer published in octavo form, (from 1845 to 1849 inclusive,) is worth far more than cost to any practical, thinking farmer or horticulturist—and the same amount of like knowledge can no where else be obtained so readily and cheaply. But, to the "models":—

Mr. D. D. T. Moore:—Enclosed I send $5 on the "Market Bank," Boston, Mass., for which send me the back volumes of the Genesee Farmer—6, 7, 8 and 9. The remaining $3 I wish to make me a subscriber for the next eight years—commencing 1st January, 1849.

I hailed with joy the appearance of your advertisement in our principal paper, and trust that many of our farmers will answer the call. I have thus far endeavored to procure no subscribers, knowing that with a single number of your valuable paper in my hand, I can do more in an hour than I could otherwise in a week.

The farmers of central Indiana are beginning to cheer up since the rail road has been completed to the Ohio river; and I have no doubt but that your subscription list will be increased from this quarter. Calvin Fletcher, Jr.—*Indianapolis, Ind.*, 1849.

Mr. Moore:—I send you $3 enclosed for the Genesee Farmer. Please forward volumes 6, 7, 8 and 9, bound—volume 10 when bound, and volume 11 as published. Send the four volumes that are bound by Express—the other volume and numbers by mail. Hutchins Wight. *Waterloo, Seneca Co., N. Y.*, *Nov.* 1, 1849.

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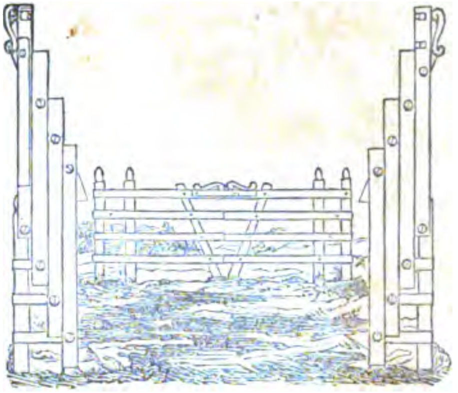
Weevil. — *Caution to Farmers.*—The Hon. E. Blackman, of Newark, N. Y., exhibited to the writer samples of Timothy Seed obtained by him at Buffalo, which was literally alive with weevils. The seed was understood to be ftom Ohio; and most of the seed from many parts of that State, having been obtained from grass in the wheat crop, the weevil falls into their timothy seed and thus is sown broadcast over the land. As the insect lives through winter, or, in some other way appears in the same locality every season, it may be possible that the sowing of this seed containing them may hasten the general prevalence of that dread scourge throughout the entire wheat growing section of our State. Ought not farmers to be on their guard against thus distributing destruction to their crops of wheat? W.

* * *

Agricultral Papers. — Every farmer can well afford to take a good agricultural paper, to assist him in the erection of suitable buildings and fences; the making and saving manure; the selection of agricultural implements; the best kinds of stock and fruit; the feeding and fattening of cattle; the management of his land and crops—thus obtaining the united wisdom and experience of the best practical farmers, not only of our own country, but of the civilized world. I have known farmers to lay out through mismanagement, within the short period of a year, enough to pay for *one hundred* copies of any agricultural paper published in the land. L. Freeman Thurber.—*Washington, Vt.*, 1849.



SMITH'S VERTICAL GATE.

The attention of the public is requested to the above gate, recently invented and patented by Lorenzo Smith, of Easton, Mass. The above cut represents a large gate open and a smaller one shut. This gate does not *swing*, but opens *vertically* by a parallel movement of rails. Its superiority to the gate in common use may be readily seen. As it does not swing, there can be no sagging; thus avoiding a great objection to the swing gate. It requires no ground to swing upon; consequently it can be opened or shut while teams, carts, or carriages are standing close to it, or with a snow bank on both sides of it. It is opened and shut much quicker than the ordinary gate, and a man on horseback can open it without alighting. For very heavy gates it is designed to have weights attached to the ends of the rails, to assist in raising them; but gates of ordinary size do not require weights. This gate is more especially intended for carriage ways, but is admirably calculated for the doors of stables, and other places where the common gate cannot be used, and also may be made single for footpaths and narrow passages. It costs no more than the swing gate, (including the posts,) and is less liable to get out of order, and more easily repaired, if repairs are needed. The practical operation of the Vertical Gate has been thorougkly tested, and, so far as known, meets with universal favor.—*New England Farmer.*

* * *

Husk Beds.—Now (the husking season) is the time to secure the best and most durable under beds. All the inner husks of the corn should be saved for this purpose. True, it takes a great many to make a bed, but when once the sack is filled, it is a bed for life, and it is the lightest and softest thing of the kind that one could desire. The husks curl up and they dry and never mat down afterwards. Moreover no insects ever lodge in them, as vermin do in straw. They are perfectly cleanly; and being of a stong and tough texture, they will not wear out for years. We regard a good husk bed as cheap at $5. A young married couple, to the end of life, however long, will have no occasion to fill a new under bed, if they once have their sacks filled with good, soft, well-dried corn husks. We had all ours filled fifteen years ago, and they are to this day "good as new."—*Maine Cultivator.*

* * *

'The tree is known by its fruit." The only exception to this is the *dog*-wood, which is known by its *bark!*

A STRAY LEAF FROM A MANUSCIPT WORK.

What change takes place in a kernel of wheat or other seed when it is about to put forth its *germ*?

By the influence of *heat, air* and *moisture* the *starch* in the seed is converted into *sugar*. The quantity of sugar thus formed is often sufficient to make bread quite *sweet* to the taste when made of wheat which was a "little grown."

Is *starch* an important substance in the economy of organic life?

It is. And its properties, and component parts should be carefully studied.

How many simple elements enter into the composition of starch? Three.

What are they?

Carbon, Oxygen and Hydrogen.

Whaf are the propcrtions of carbon oxygen and hydrogen in 100 lbs., of starch?

According to Dr. Prout 100 parts of starch dried at 212° contain,

Carbon	44 per cent or	12 atoms.
Hydrogen	5,2 " "	10 "
Oxygen	49,8 " "	10 "
	100	

In what respect does the composition of sugar differ from that of starch?

Starch and sugar are composed of the same simple elements, and in the same proportions, and yet starch and sugar are different substances.

How is that?

There are many changes iu the *form* and *properties* of matter without any addition or diminution of the substances thus affected. Water is a *liquid* when its temperature is below 32°; but crystallised and solid like a rock when cooled much below that point. The same elements—oxygen and hydrogen—and in the same proportions, may be at one time *solid* ice, at another a *liquid* and another a *gas* or air.—So, the same compound of carbon and water, may be at one time *woody fibre*, at another *starch*, and then exist in the form of *gum* or *sugar*.

What portion of a ripe wheat plant is carbon and water?

Not far from 94 per cent.

What are the releative proportions of oxygen and hydrogen in water?

If 7 pounds of oxygen gas be mixed with one of hydrogen and set on fire, they will explode and condense into 9 pounds of water.

Suppose 10 lbs. of oxygen be mixed with one of hydrogen and fired with an electric spark, what will take place?

Only 8 lbs. of the oxygen will unite with the hydrogen, leaving 2 lbs. of oxygen uncombined and floating like common air above the artificial water.

To what general law is this result atributable?

It is atributed to what is called the law of "Definite Proportions."

Explain what you mean by the "law of definite proportions?"

You wil see in the above table of the component elements which make starch that while six and two-tenths per cent of hydrogen make 10 atoms in the compound substance called starch, 49.8 per cent. of oxygen make precisely the same number of atoms.

How do you explain this result?

This result arises from the fact that, eight ounces or pounds of oxygen are *equivalent* to one of hydrogen. In other words one atom of oxygen is eight times heavier than one atom of hydrogen. H if we divide 49.8—the proportion of oxyg starch—by 8, the product will be very nearly 6. the proportion of hydrogen.

If *one* is the proportional number of hydrogen eight the proportional number of oxygen, wha proportional number of *carbon*, which you say i other constituent in starch, woody fibre, gum, and sugar.

Six is the proportional or equivalent numb carbon.

How do you prove this?

If 6 ounces of carbon is burnt in 16 ounces gen—2 proportionals—the carbon and oxygen w combine and form 22 ounces of carbonic acid. chemical combinations are governed by the la definite proportion; otherwise neither water nor mon salt, nor other compound body would be un in character.

* * *

Pioneer History of the Holland Purchase of Weste York: Embracings ome account of the Ancient Remain history of our immediate predecessors, the confedera quois, their System of Government, Wars, etc.—A syn Colonial History: some notice of the Border Wars of th lution: and a history of Pioneer Settlements under the of Holland Company;—including Reminiscences of the 1812; the origin, progress, and completion of the Erie C etc., etc., etc., By O. Turner. Buffalo: Published by J. Thomas, & Co. 1849.

The Publishers are entitled to our thanks for a this work—a large and beautiful volume of 6 From a cursory examination, we consider it an inte torical narrative, of no little value to the citizens of district of Western New-York. It must prove acceptable and interesting to "the surviving pion descendants of pioneers of the Holland Purchas," t the volume is inscribed. While the contents are to the author, the handsome manner in which the been issued is noticable. It is neatlyembellished— lithograph portraits of the most prominent pi agents of the Holland Company; also appropriate gravings, County Maps, &c.—and proves that its sing Publishers possess superior facilities for boo For sale in this city by Sage & Brother, and D. M. ey,—and booksellers generally throughout Western N. Y.

* * *

Editors of the Genesee Farmer.—In additi Barry, Esq., conductor of the Horticultural De the Proprtietor is happy to inform the friends and p this Journal, that he has secured the editorial serv James Vick, Jr.—a gentleman who has, under va signatures, contributed some of the best articles in present volume of the Farmer. Mr. V. will dev time to the business of the office during the year 18

The following item should appear in the Hort ral Department of this number, but did not come t printer's hands until the pages of that department stereotyped:—

The conductor of the Horticultural Department Farmer wishes, at the close of the volume, to apolo the defective manner in which, from absence and o terruptions, he has performed his duties during a co able portion of the year. He does not anticipate the same extent, during the ensuing year, and ho with more regular attention, and the greatly exten of experiment in Pomology and Horticulture in gen which he can now avail himself, he will be able t this department more valuable and interesting than ever been. He solicits a continuance of favors from vators, such as specimens of fruits and useful facts r to the culture and management of the garden and or

* * *

Correction.—The following note should have app in a previous number, but was overlooked:—

Messrs. Editors:—Will you correct an error wh pears in my communication relative to Merino Shee lished in the September number of the Farmer, (pa The first line of the second paragraph reads, "Last I sheared 25 full blood Merinos," &c. Instead of t five, it should read *one hundred and twenty-five*—an ex difference. Reed Burritt.—*Burdett, N. Y.*, 1849.

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

THE CONGRESS OF FRUIT GROWERS.

On page 280 of our last volume will be found the list of fruits adopted by this body, last year, for general cultivation. And we now copy from the Horticulturist the list of varieties adopted and rejected at the late session. An important step has been taken, and not the least of it is the striking off 100 indifferent or worthless varieties of pears, and some 26 of apples. Among these rejected sorts there are a few that we would have reserved—for instance, the *Golden Reinette Apple*, and the *Caillot Rosat* or *Summer Rose* and *Cuvelier Pears*. We care little about these, any more than we could name 50 other apples, and 100 other pears equally, and in some cases much more deserving of being cast out.

Again, in the adopted list we know that some of the very best of fruits are yet left out; but that is no detriment to them—they will be cultivated none the less. It should be well understood that these lists of adopted and rejected varieties were made out by a few of the Boston pomologists. To be sure they were sanctioned by the Chairman of the General Fruit Committee, and by the Convention at large, but the experience on which the list was first made was that of a few cultivators around Boston. This will account for such as the Vandevere and Wine Apples being adopted, and the Northern Spy and Melon being left off—the former varieties, in our opinion, are not worthy of comparison with the latter.

The list was first presented to the Convention as "the report of the Massachusett's Fruit Committee," and contained a great many more varieties, both adopted and rejected, than appears in it now. We were in favor, and so were many others, of receiving it and placing it on the minutes entire, as the report of that committee. This would have shown the actual experience of that section, when other committees, from other places would have reported in a similar manner. We then should have had their experience—thus would have been collected in an unerring manner the good and bad of every region. Its adoption as "the report of the General Fruit Committee," was, however, pressed upon the Convention, whilst a fraction only of that Committee had an opportunity of examining it, or bringing their experience to bear upon it, more than to simply say *aye* or *no* to its adoption or rejection in Convention.

We allude to this matter, not for the sake of manifesting opposition to what has been done, but for the purpose of expressing our own opinion, and the reasons for it, that the General Fruit Committee should not report on behalf of the country at large, as they will be supposed to do, until the various local committees have been heard from or consulted. The past season was highly unfavorable, in most parts of the country for the preparation of reports, and hence but few were presented. The plan of acting on the report, however, was very safe. Any variety that a single plea was offered for or against, was struck off.

The discussions on the qualities of fruits, their peculiar excellencies and defects in various localities, were of great interest and importance to cultivators; indeed, this is the pith of all the doings, and as soon as the printed proceedings appear, we shall glean the most valuable for the benefit of the readers of the Farmer.

LIST OF FRUITS FOR GENERAL CULTIVATION.

PEARS.

Rostiezer,
Andrews,
Fondante d'Automne.
Fulton,
Urbaniste,
Vicar of Winkfield,
Uvedale's St. Germain, or Pound,
Louise Bonne de Jersey,
Uvedale's St. Germain. *for baking*

APPLES.

Swaar,
Porter.
Fameuse,
Vandevere,
Hubbardston Nonsuch.
Danvers Winter Sweet.
Bullock's Pippin.
White Seek-no-further,
Winesap,
Lady Apple,
Wine Apple,
Red Astrachan

APRICOTS.

Large Early,
Breda,
Moorpark.

NECTARINES.

Downton,
Elruge,
Early Violet.

GRAPES,

(*for culture under glass.*)

Black Hamburgh.
Black Prince.
Black Frontignan,
Grizzly Frontignan,
White Frontignan.
White Muscat of Alexandria,
Chasselas of Fontainbleau.

(*for open culture.*)

Isabella,
Catawba.

CURRANTS.

Red Dutch,
White Dutch,
Black Naples,
May's Victoria,
White Grape.

GOOSEBERRIES.

Houghton's Seedling,
Woodward's Whitesmith,
Crown Bob.
Red Champagne,
Warrington,
Laurel,
Ironmonger,
Early Sulphur,
Green Gage,
Green Walnut.

RASPBERRIES.

Red Antwerp,
Knevett's Giant,
Fastolff,
Yellow Antwerp.

STRAWBERRIES.

Large Early Scarlet,
Boston Pine,
Hovey's Seedling.

The following list was adopted by the convention as new varieties, which "give promise of being worthy of being added to the list for general cultivation."

PLUMS.

River's Favorite,
St. Martin's Quetsche,
McLaughlin.

PEARS.

Beurre d'Anjou,
Doyenne Boussock.
Manning's Elizabeth,
Doyenne d'Ete,
Striped Madeleine,
Duchess d'Orleans,
Pratt,
Paradise d'Automne,
Van Assene.
Jalouise d'Fontenay Vendee,
Chancellor,
Ananas d'Ete
Brandywine,
Ott.

STRAWBERRIES.

Burr's New Pine,
Jenny's Seedling.

LIST OF REJECTED FRUITS.

APPLES.

Gloucester White,
Henry's Weeping Pippin,
Gray House,
Red Ingestrie,
White Ingestrie,
Lord Nelson. (Kirke's)
Marmalade Pippin,
Rowland's Red Streak,
Woolston's Red Sweet,
Woolston's White Sweet,
Golden Reinnette,
Pennock.
Hoary Morning.
Large Red Sweeting,
Red Doctor,
Grand Sachem,
Beachamull's,
Cathead,
Caroline, (English,)
Dodge's Eearly Red,
Fenouillet Rouge,
French Gray Reinnette
Muscovia
Irish Peach,
Pigeonette,
Salina.

PEARS.

Croft Castle.
Alexander of Russia,
Admiral,
Aston Town,
Autumn Bergamot,
D'Amour
Angers.
Beurre d'Anglerterre,
Green Sugar,
Gros Blangart,
Green Chisel,
Hays,
Hathorne's Seedling,
Horticulture,
Hastivea,
Ipswich Holland,

Beurre Sentin,
Beurre of Beswiller,
Bon Chretien d'Esperen.
Bon Chretien of Brussells,
Bergamotte Sylvange,
Bergamotte Fortunee,
Beauty of Winter,
Belmont.
Bezi Vact.
Bruno de Bosco.
Blangent a longue guene,
Bingo Master,
Cuvelier.
Chat Grille,
Chain a Damo,
Charles Van Mons,
Cassolette,
Compte de Fresuel,
Copea,
Caillat Rosat.
Clara,
Clapp,
Citron de Sierens,
Dearborn of Van Mons,
Downton.
Duquesne d'Ete,
Doyenne Mons,
Deschamps' New Late,
Dunbarton.
Doyenne Diere,
Endicott.
Elton.
Frederic of Prussia,
Famenga.
Forme Urbaniste,
Fantasie Van Mons.
Forme des Delicas
French Iron,
Green Zair,
Grise Bonne,
Garnstone,
Green Catharine,
Jargonelle. (of the French)
Kramelsbrine,
Lincoln,
Louis of Bologna,
Lederbrine,
Louis Bonne,
Lansac,
Madam Vert,
Millar's Seedling,
Marquis,
Marcelis,
Navez,
Orange,
Orange Tulippe,
Phillips,
Pittfow,
Platt's Bergamot,
Passe Long Bras,
Princes Portugal,
Pope's Scarlet Major,
Pitt's Marie Louise,
Royal d'Hiver,
Rouse Lench,
Rousselett St Vincent,
Sans Pepins,
Swan's Egg,
Surpass Meuris,
Saint Bruno,
Swiss Bergamot,
Sousreine,
Sickler,
Thompson of N. Hampshire,
Tucker's Seedling,
Trubserherdz Dullo,
Whitfield,
Winter Orange,
Wurtzer d'Automne,
Yutle,
Crassane.
Winter Crassane,
Citron of Bohemia,
Madotte.

HINTS FOR THE SEASON.

Up to this time, (Nov. 16,) the weather has been remarkably mild here. Many border plants, such as Monthly Roses, Scarlet Geraniums, Phloxes, Salvias, Pansies, Mignonette, and many late blooming annuals, are yet in full bloom—looking better, indeed, than at any previous period this season. Dahlias even were not injured till about a week ago, and this is quite unusual with us. But with this mildness we have had immense quantities of rain; every third or fourth day has been rainy since about the first of October. Just at this time the weather is delightful, and is affording to every body who heeds it a fine opportunity for completing in a proper manner their out door planting and gardening matters.

Transplanting will now be finished. It should be remembered that fall planted trees are not safe until properly staked and mulched with manure or litter, to guard the roots against the effects of frost, and every precaution should be taken to prevent water from lodging about the roots, in the slightest degree, as it is almost certain death. All trees and shrubs that are in any degree tender should, in addition to staking and mulching, be protected with a sheathing of straw tied *loosely* around them. Many trees and shrubs that are perfectly hardy when well established, require care of this sort the first or second year after planting. A simple and effectual way of protecting young plants of rare evergreens, that cannot be wrapped up in straw is to place a small box or barrel over them, after being well mulched. *Strawberry Beds*, particularly those recently made, should be covered a few inches deep with leaves. *Raspberry Canes* should be laid down and covered slightly with earth. Some seasons this is quite unnecessary, but it is always safe, as it insures a crop next season, whatever the winter may be, and the labor required is a mere trifle. The large plantations of market growers, near New York, are all protected in this way. Bulbous roots, such as *Hyacinths*, *Tulips*, &c., should have a covering of leaves or straw to prevent the frost penetrating to the bulbs or drawing them to the surface. In cases of newly planted beds this is quite indispensable.

Rare or delicate *Roses* should all be carefully protected. Standard or tree roses are best managed by taking them up and wintering them in the cellar with the roots in the ground, and planting out again in the spring. This is the practice in France where the climate is not unlike ours, and where in many cases, whole acres of these rose trees are grown. Transplanting has a good effect upon them. The tops are always well cut back, when planted out, and this encourages a strong growth of flowering wood during the following season. If not taken up, they should be securely staked and the trunk well protected with straw, and a good mulching of manure or litter be placed around the roots. We allude to these matters because we know that many persons are now planting such things, that do not possess the necessary information to take care of them, and will most likely treat a rose tree as they would an apple tree.

Carnations and *Monthly Roses*, and many half hardy border plants may be wintered nicely in a little pit, some three feet deep, with a common hot-bed frame in it and covered with glazed sashes or boards and matts, or straw, and well lined around the outside with manure, or banked up with earth. Such pits as these are valuable to persons who have no green house, and if well managed answer every purpose. They will require occasional airings in mild weather, removal of dead and decaying leaves and wood, and a sharp look out always for vermin.

Every spring we hear people tell about losing their *Dahlia Roots*. They either *freeze* or *rot*. The roots after being taken up should be well dried in the sun, or if that cannot be done, near a fire, and then be put away on a shelf in a dry place. A little heat will do them no harm. A damp cellar is sure to rot them. They should be frequently examined and the decaying portions of the stem or tubers removed. A very good way is to put them, after being dried, in perfectly dry sand—dried by a fire.

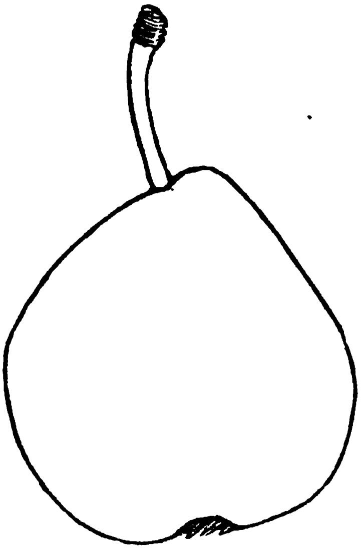
Rubbish of all sorts, piles of brush, stone, &c., that afford harbor for vermin, should never be permitted around a garden or orchard, and long grass or weeds in the neighborhood of trees is highly dangerous. For the amount of a days labor of a man (costing 75 cents) in removing such nuisance, whole orchards of trees are sometimes ruined, and hedges too. Towards Autumn people are too apt to slacken their culture, and allow weeds and grass to run wild—imagining that it will do no harm while growth is suspended, but experience to the contrary is often dearly bought.

Trenching, spading and manuring of gardens, and spading and manuring around neglected trees, should proceed now, as long as it is possible to work the ground. It is the period of the year when most leisure is enjoyed by all classes of people, besides it is the very best period for performing this work.

Fallen leaves should all be cleanly raked up from the garden walks, grass plot, and all around the premises, and be carried to the compost heap. If left where they are they become decayed before they are removed in spring, and injure the grass, and harbor vermin during the winter.

DESCRIPTIONS AND FIGURES OF TWO FINE PEARS.

The Forelle or Trout Pear.—This is the *Forellenbrine* of the Germans, and *Poire Truite* of the French, one of the most beautiful and at the same time one of the most excellent of pears, and so distinct in the coloring of the fruit and the appearance of the tree as to distinguish it at the first glance from a thousand sorts. For four or five years past we have had it bear every year, and the more we see and know of it, the more we admire it. It was described and figured in Hovey's Magazine of August, 1847, and the description is so excellent that we choose it instead of giving our own description, as giving additional authority on the subject. We must remark, however, that the size of Mr. Hovey's and Mr. Downing's cuts are rather larger than we find it on an average. It is always a trifle below medium with us.

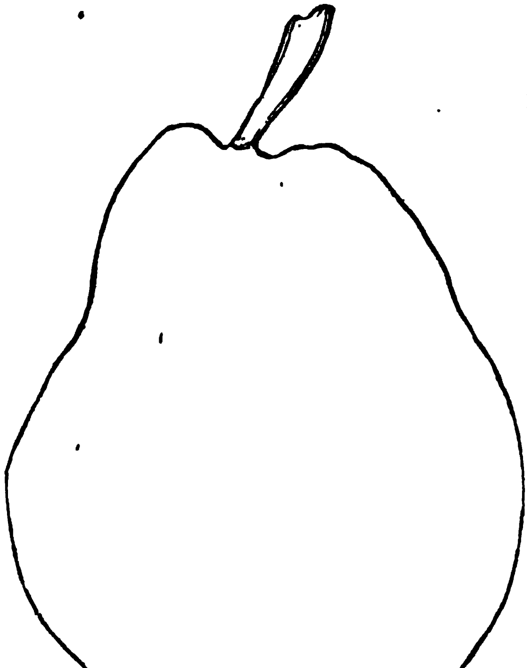


> The Forelle is, without doubt, the most beautiful pear which has ever been produced, and would deserve cultivation for its appearance only, if it were even a second rate pear. But it stands almost as high for its excellence as for its beauty. Dr. Diel, in his *Pomology*, speaks of the Forelle as competing with the best French varieties, and Mr. Thompson states that it "merits his eulogium in all respects."
>
> The Forelle takes its name from the resemblance of its beautifully speckled skin to the Trout, and, in the French collections, it is generally called the Truite pear. When the fruit is produced in perfection, it is deeply colored with vermilion, and profusely covered with grayish russet dots, which are margined or rayed with crimson. The tree grows very rapidly, more resembling, in the color of the wood, which is of a rich violet red speckled with grayish white, an apple than a pear: young shoots woolly: leaves, roundish ovate. It is very productive, and grows either; upon the quince or pear stock.
>
> Mr. Manning, who described it among the many kinds which he proved in his collection, (Vol. iii. p. 49,) stated that with him it had not come up to the character given it in the *Pom. Mag.*, but we suspect he had not produced it under favorable circumstances. Our drawing is from a specimen produced in the collection of Mrs. Heard, of Watertown, in 1846. and. in beauty as well as quality, it was a first-rate fruit. Where the locality is unfavorable as a dwarf or standard, we would recommend it as deserving a wall or an espalier.
>
> *Size*, large, about two inches in diameter, and three long. *Form*, oblong obovate, regular, rather the largest in the middle, and tapering to an obtuse point at the stem: *Skin*, fair, smooth, dull yellow in the shade, broadly shaded with vermilion on the sunny side, and beautifully speckled with grayish dots, which are deeply margined with crimson: *Stem*, rather short, about three quarters of an inch, slender. nearly straight, and obliquely inserted in a small, shallow, contracted cavity, with a swollen lip or projection on one side· *Eye*. medium size, partially open, moderately sunk in a small and rather abruptly depressed basin, segments of the calyx broad and closed up, little reflexed: *Flesh*, white, very fine grained. buttery, melting and juicy: *Flavor*, rich, sprightly, vinous, slightly perfumed and excellent: *Core*, medium size: *Seeds*, medium size, nearly black. Ripe in November, and frequently keeps till January.

Mr. Downing in his Fruits and Fruit Trees says —"It fully sustains its high foreign reputation with us."

Beurre Gris d'Hiver Nouveau.—This is a large and fine pear of the first quality, quite rare yet in American collections. We imported it from France in 1846. In France and Belgium it is considered one of the best pears, and is invariably included in the smallest and most select assortments. From what we have seen of it here, we have not the least doubt but that it will prove equally fine in this country. The tree is rather slow in growth, but upright and exceedingly prolific, even to a fault. The young wood is reddish, bearing considerable resemblance to that of the old *Brown Beurre*, but the habit of the tree is different. Our tree is on a quince stock.

The fruit is large and somewhat irregular in forms some quite pyriform, as the *Bartlett*, and othere more obtuse, like a *Beurre Diel*, while others are rounder still. We think the annexed cut represent; the most ordinary form. The skin is covered with a rich cinnamon russet, and usually a faint tinge of red on the sunny side. Stalk stout, about three-fourths of an inch, inserted in a slight cavity, frequently under a fleshy knob. Eye small, in a shallow cavity.



Flesh white, fine grained and melting. Juice abundant, sprightly and perfumed, like the old *Brown Beurre*, but less astringent.

To our taste there is no better pear than this. A gentleman from Indiana, a thorough lover of fine fruits was in our office in October and picked up and ate a nice old *Brown Beurre.* After finishing it he said, "Well, I have eaten a good many of your best pears lately, but none so good as that—I must have a few more trees of it." What would he say if he had a slice of this?

This variety is noticed in Hovey's Magazine, vol. 14, page 110:—"A new and decidedly valuable acquisition to our late pears; possessing qualities similar to the old *Brown Beurre*, but less acid and fully as high flavored. It also ripens freely, and the skin is of a rich cinnamon russet." Rivers says of it, (see Horticulturist, vol. 2, p. 476)—"In shape much like the *Easter Beurre*, and equal to it in size. This is a most abundant bearer as a pyramid on the quince. Flesh melting and high flavored, and ripens from end of December to end of January, or later."

CAUSE OF THE PEAR TREE BLIGHT.

Messrs. Editors.—Noticing in the last number of the Farmer some remarks of Mr. James H. Watts, on the subject of the Pear Blight, and noticing also a request that others would communicate their experience on the subject through your columns, I am inclined to give you mine.

I have five pear trees adjacent to each other, which are of about twenty-five year's growth. Three of them stand in a yard which has, I think, never been cultivated since the trees were set. I have several times within the last five years given them a dressing of leached ashes. The other two trees are enclosed in another yard which has been cultivated for a few years past. They were all of them healthy, bearing trees up to 1848, when four of them were struck with blight—all of those in the uncultivated ground, and one of those in the cultivated. I pruned off all the affected branches, and the last spring they put out and grew vigorously for a time, but in the month of June the blight began to make its appearance again, which has continued, till now the tops are nearly all dead. The other tree, standing in the cultivated ground, and the most thrifty growing tree of the five, continued healthy and vigorous. I have also a number of dwarf pear trees in my yard. The ground has been spaded and manured around them every spring since they were set. Most of them have grown well, and are healthy—one of them only has been troubled with blight, and that the slowest growing and most puny tree in my yard.

I had occasion to pass through the orchard of one of my neighbors in September last, and observing several fine bearing pear trees, I inquired of the owner if his trees were ever affected with blight—he said not in the least. His orchard had been planted in corn the past season; it had also been frequently manured, plowed and hoed.

Our soil is a common limestone soil, with a subsoil of marl and clay, intermingled with limestone gravel. From my own experience and observation I am satisfied that Mr. Watts' conclusions are erroneous. I think that a uniformly cultivated and enriched soil, which will keep the trees in a steady growing condition will render them most healthy and best able to resist blight. F. R. P.—*Sweden, N. Y., Oct.,* 1849.

ANSWERS AND ACKNOWLEDGMENTS.

Grapes.—(N. Simons, Castile.) Your seedling Grape is a large fine variety of the wild Fox Grape, quite unworthy of cultivation, in our opinion, compared with the *Isabella* and *Catawba.* A gentleman of this city, M. G. Warner, Esq., cultivates the same, brought by him from Connecticut.

Apples.—We are indebted to Mr. Andrew Cone, of East Bloomfield, for apples "taken from a seedling tree 55 years old—first rate for cooking and good for eating." This is a beautiful yellow apple with a red cheek, resembling the *Bellflower* in shape. We are sure it is first rate for cooking, and as Mr. C. says it is very productive, is no doubt valuable at this season.

Munson Sweeting. — We are indebted to Mr. Jesse Storrs, nurseryman, of Marathon, N. Y., for a box of this delicious sweet apple. We are sure it is identical with the Northern Sweeting, exhibited at New York by Jonathan Batty, of Keesville—one of the very best sweet apples for fall use we have seen. We will give a farther account of this apple at another time.

Pears. *Oswego Beure.*—We are indebted to J. W. P. Allen, Esq., of Oswego, for specimens of the *Oswego Beurre*, in perfection; and they fully confirm the high opinion expressed by ourselves and others in regard to the fruit. It is truly one of the very best American pears. The flavor is almost identical with the *New Winter Brown Beurre*, figured in this number, and if eaten in the dark one might suppose them the same fruit. Among these specimens we find one larger than the others, which Mr. Allen says was produced from a graft on an apple tree, set two years ago. It is high flavored and more mature than the others. We may add that this is one of the best for pyramids on quince stock. Mr. A. has promised us a fuller account of this fruit than has yet appeared.

Comparative profits of cultivating Fall and Winter Pears. (P. P. Lyon, Plymouth, Mich.) We have not time this month to give this subject attention, but will as soon as possible.

Rochester Commercial Nursery,
No. 3 EAST AVENUE, ROCHESTER, N. YORK.

THE Subscribers respectfully inform the public that their stock of FRUIT TREES for sale this Autumn is very large, and comprises all the varieties that are really desirable. They leave to others the task of cultivating and selling worthless varieties, and intend to propagate none but such as have been well tested and approved.

To those who wish to buy to sell again, we can offer great inducements.

☞ Priced Catalogues furnished to post-paid applicants.
Sept. 1, 1849. [9-4m] BISSELL & HOOKER.

SEEDLINGS, for Sale at the Geneva Nursery.

PEAR, Plum, Cherry, Apple Quince, Mountain Ash, Horse Chesnut, Buckthorn, &c. SEEDLINGS and SEED of the above trees for sale at the Geneva Nursery.

Also, all kinds of Fruit and Ornamental Trees, Shrubbery, and Vines for sale.
Geneva, Ont. Co., N. Y. [10 3m*] W. G. VERPLANCK.

Drain Tile, Pipes, and Roofing Tile.

BENJ. F. WHARTENBY, Manufacturer of DRAINING TILE, Drain Pipe, Roofing Tile, &c., offers them for sale at his kiln at Waterloo, Seneca Co., N. Y., at the following prices. 4 inch horse-shoe Tile, $15 per 1000—3 inch, $12 50—2 inch, $10. 4 inch Pipes, $16—3 inch, $14—2 inch, $10—1½ inch, $9—1 inch, $8. Roofing Tile, $20—13½ tile to the rod. Soles for the horse-shoe tile, half the price of tile; these are not always necessary.

All orders promptly supplied. [11-2t]
Waterloo, N. Y., Nov. 1, 1849 B. F. WHARTENBY.

Back numbers and volumes of the Farmer promptly supplied to agents and new subscribers.

PROSPECTUS OF

Moore's Rural New-Yorker,

A WEEKLY JOURNAL, IN QUARTO FORM,

Devoted to Agriculture, Horticulture, Mechanic Arts, Science, Literature, Education, Rural and Domestic Economy, Reports of the Crops & Markets, and General Intelligence. Independent on all Subjects.—Each number Illustrated with Beautiful and Costly Engravings.

CONDUUCTED BY D. D. T. MOORE.

ASSOCIATE AND CORRESPONDING EDITORS:

LYMAN B. LANGWORTHY, Esq., of Monroe County,
T. C. PETERS, (Editor Wool Grower,) of Genesee Co.,
E. COMSTOCK, (former Ed. Central New York Farmer,) of Oneida County.
Horticultural Department by JAMES VICK, JR.
Educational Department by L. WETHERELL, A. M.

IN ANNOUNCING A NEW PERIODICAL, bearing the above title, and asking therefor the support and influence of the Rural Population of the Country, the Publisher solicits attention to its plan and the objects contemplated. It may be proper to remark, in the first place, that the enterprise has not been hastily determined upon. On the contrary, we have long had it in view, and consulted with many of the most intelligent and influential farmers in the State, who have almost invariably admitted the necessity and importance of the work, and urged its commencement. We have likewise received numerous letters during the past two years, suggesting and advising the publication of such a journal as the one now offered to the Agricultural Community. Indeed, from the facts mentioned, and other reliable information upon the subject, we believe that the Industrial Citizens of the Empire State WANT and will SUSTAIN a *Weekly Agricultural and Family Newspaper*—and that such a work, properly projected and conducted, will prove largely beneficial to the Productive Interests of the Country. These are some of the reasons which have induced us to embark in the enterprise—a few of the *facts* upon which we base our *faith* in its success.

THE RURAL NEW-YORKER, as its title indicates, will be principally devoted to *Agriculture* and *Horticulture* and their kindred Arts and Sciences. The Conductor has secured such assistance in the **Editorial Department**, as will, it is confidently believed, render the work one of the most reliable and valuable in the country. A large number of Contributors and Correspondents—men who possess, and know how to impart, both practical and scientific knowledge—will communicate the results of their experience, observation and study to the readers of the New Yorker. Every branch of Farm, Fruit and Garden Culture will be fully and seasonably discussed. Each number of the paper will be *appropriately illustrated*. In this respect we pledge ourselves to make the New Yorker *far superior* to any similar journal ever issued in the Union. The volume for 1850 will contain

OVER **150** HANDSOME AND COSTLY ENGRAVINGS,

embracing Designs of Farm Buildings,—Portraits of Domestic Animals.—Figures of New and Improved Implements and Machines.—Choice Fruits and Fruit and Ornamental Trees, Shrubs, Flowers.&c., &c. Particular attention will be given to Rural Architecture; such articles, designs and plans will be published as must lead to a more correct taste, and the erection of more convenient and beautiful Farm Buildings and Suburban Residences. The Proceedings of our State and County Agricultural Societies will be noticed promptly, or published at length—together with such other similar information as will prove interesting to all engaged in rural pursuits or in promoting improvement.

To Mechanics, Manufactures and Inventors, the Rural New Yorker will furnish useful and interesting intelligence. It will contain figures and descriptions of improved machines and implements—give a list of Patents as issued—notice all new and valuable discoveries in the Mechanic Arts—and embrace a variety of other information calculated to enhance the interests of all engaged in mechanical employments.

The Departments devoted to **Literature, Education** and **Domestic Economy** will be conducted with great care, and an earnest desire to render their contents pleasing, useful and acceptable at the *Family Fireside*. Avoiding the trashy nonsense put forth in too many of the literary periodicals of the day, we shall aim to give, each week, such mental entertainment as will tend to improve and interest the *heart* and *mind*, without vitiating the taste or corrupting the morals of any who may partake of our banquet. Indeed, we shall strive to furnish such a variety of choice reading as will prove interesting to the aged and the youthful—the **fathers** and mothers, young men and maidens.

That portion of the paper devoted to General Intelligence will contain a summary of the latest and most imsortant Domes- and Foreign News. No effort will be spared to make this department equal to the best weekly newspapers of the day. Particular and careful attention will be given to reports of the Markets, Crops, &c. The columns devoted to this subject can be made highly interesting and really valuable to every farmer. It is a matter of great importance that every producer should have late and reliable intelligence concerning the crops and markets, and we shall endeavor to keep our readers posted up on these topics. The Telegraph, and an exchange with the best American and European commercial journals, will enable us to give, in each number the most recent and accurate information.

IN TYPOGRAPHICAL APPEARANCE and mechanical execution the New Yorker will be second to no similar journal of its class. It will be published in Quarto Form, on *new, handsome* and *clear type*, and paper of superior quality. The size will be larger than either of the weekly agricultural journals, (of which there are five or six) in this country: each number containing EIGAT LARGE QUARTO PAGES, (of five columns each.) with Index, &c., at the close of the volume—thus rendering the work convenient and suitable for preservation and binding. It will be published *every Thursday*, and mailed so as to reach all its subscibers on the principal mail routs in this State on or before the day of publication. The first number will be issued on or before the first of January—the volume commencing with the year.

Terms, in Advance: *Single copy Two Dollars a Year. To Clubs and Agents as follows:—Four Copies for $7—Seven Copies for $12—Ten Copies for $15. All moneys received by mail will be acknowledged in the paper, and receipts sent whenever desired.*

In conclusion we confidently appeal to the Agricultural Community, to the promotion of whose interests the paper will be mainly devoted, for support and encouragement. We shall aim to make the New Yorker every way worthy of an extensive circulation throughout the Northern and Western States—and such, we fully believe, it will ere long receive. But as our expenses must be heavy, we trust all who want a *first class family paper*, will at once give us their aid and influence. Many have already subscribed, and promised to assist in establishing the New Yorker upon a permanent basis; and we ask all into whose hands this Prospectus may fall to do likewise. Those who do not wish to pay until they see the paper, can send on their names, and forward the subscription or hand it to an agent on the reception of the first number. Any and every assistance which may be rendered to forward the enterprise will be duly appreciated and gratefully acknowledged.

Those who know how faithfully we have fulfilled our pledges as conductor of the Genesee Farmer, during the past four years—in which period its circulation has been increased from *three* to *over twenty thousand*—will not perhaps require additional evidence that the promises made in this Prospectus will be fully redeemed.

☞ Post-Masters, Clergymen, Teachers, Officers and Members of Agricultural Societies, and other influential persons, of all professions—friends of mental and moral as well as of agriculrural improvement—are respectfully solicited to obtain subscriptions to the New Yorker, and forward the same as early as convenient. Subscription money, properly enclosed, may be sent by mail at our risk. Address to

D. D. T. MOORE, ROCHESTER, N. Y.
DECEMBER, 1849.

Agents Wanted—To Young Men.

LOCAL and Traveling Agents wanted for *Moore's Rural New-Yorker*, and sell bound copies of the *Genesee Farmer*, (embracing all the volumes from 1845 to 1849, inclusive.) Active and responsible young men can do well in the business. In all cases where certificates of agency are given, satisfactory recommendations as to integrity and responsibility will be required. Local agents will not need certificates, as they will only act among their friends and acquaintances.

To all properly qualified, who wish to engage in the business, a very liberal commission will be allowed. For particulars address (post paid,) or apply personally to D. D. T. MOORE,
Dec. 1, 1849. Rochester, N. Y.

Notice to Agents, Advertisers, &c.

IN consequence of the change in the proprietorship of the Farmer, it becomes necessary that all outstanding accounts should be settled at as early a day as practicable. All moneys due the establishment, from Agents, Advertisers, and others, are payable to the undersigned. Those who receive bills, are requested to forward payment by mail or otherwise, as soon as convenient.

In all cases in which I have received payment for future volumes of the Farmer, or engaged to supply County Ag. Societies with bound copies of the present or past volumes, my contracts will be fulfilled. Agents who have been awarded, (and not already received) premiums for obtaining subscribers, will receive the same on application. D. D. T. MOORE.

Nursery Fruit Trees for Sale.

THE undersigned has from fifteen to twenty thousand cultivated Fruit Trees, fit for transplanting into orchards and gardens, for sale on liberal terms. There are over one hundred of the choicest varieties of Apple, Pear, Peach, Cherry and Plum Trees, in his collection, that can be found in this country. All orders from a distance will receive prompt attention.

MOSES LONG, No. 29, Alexander street.
Rochester, N. Y., Oct. 1. [10-2m]

A New Book for Every Farmer!

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to practical Agriculture: by M. M. Rodgers, M. D., with the approval and assistance of several practical and sicntiffc gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and younger agriculturists."—*Prof. Chester Dewey, Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N. Y. Farmer and Mechanic.*

"It appears to be excedingly well adapted for the purpose of instruction. It is concise and plain—neither too much nor too little"—*Hon. Zadock Pratt.*

"We have seen enough to convince us that it is a work of rare merit, such an one as will meet with the approbation of all intelligent readers. Every agriculturist who reads and digests should procure the work."—*American Farmer, Baltimore.*

"We commend the work to the Farmer, especially to the young farmer, as well worthy of his attention."—*Berkshire Culturist, Pittsfield, Mass.*

"We think the author has ably preformed the difficult task of rendering science easy to the practical farmer."—*New England Farmer, by S. W. Cole.*

ERASTUS DARROW, Publisher and Bookseller,
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally.

⁂ Darrow has a large stock of BOOKS at wholesale or retail, Orders promptly answered. [3-com-tf]

Owen Morris,

CITY BINDERY, UNDER THE MUSEUM, Rochester, N. Y.

THREE Silver Medals have been awarded to the subscriber for the best specimens of Book Binding, exhibited at the Mechanics' Fairs held in this city and Buffalo.

Gentlemen's Libraries fitted up and repaired; Music paper ruled. Music and Periodicals bound and finished to any pattern; Blank Account Books executed at this establishment, have given unequalled satisfaction, by their durability and elegance. Strict attention is always paid to the quality of paper used, to render them equal to the best in the United States, or those imported.

Ladies' Scrap and Guard Books, Albums and Portfolios in all their varieties, manufactured to order in the best style.

Banks, Institutions, Societies, &c, may be assured of work being done on the most advantageous terms.

Gentlemen residing at a distance, by packing and forwarding volumes to the above directions, stating price and style, may rely upon their being well bound on the most favorable terms, also carefully and punctually returned.

N. B.—The proprietor has spared no expense in fitting up the establisment, and introducing into Western New York the latest improvement in Book Binding.

☞ The Genesee Farmer and other periodicals bound to order.

OWEN MOBRIS.
City Bindery, under the Museum.
Rochester Nov. 1, 1849 [11-tf]

Patent Improved Railroad Horse-Power and Overshot Thresher and Separator.

THIS Power & Thresher, which has been so long before the public, and given such perfect and universal satisfaction, has met with such a constant and rapidly increasing sale, that other manufacturers sometimes adopt headings similar to those of my advertisement—and, in some cases, parts of the advertisements themselves—which, if not observed, may lead to mistakes and purchasers may get, instead of the machine which has earned the reputation, one of a different construction.

The machine has been much improved, and no pains or expense is spared to make it in the most thorough and durable manner, as we have the greatest facilities as to power, room and materials at our command. It is the cheapest, simplest, most durable and portable set of machinery for the purpose in use, and warranted in every case to give satisfaction to the purchaser. For further particulars see my advertisements in the agricultural papers of the United States and Canada. Catalogues and circulars furnished gratis on application by mail.

HORACE L. EMERY,
Agricultural Warehouse, 369 & 371, Broadway, Albany, N. Y.

Improved Well and Cistern Pumps.

DOWNS, MYNDHERSE & CO., of Seneca Falls, N. Y., would call the attention of Hardware Merchants and all others who have occasion to deal in or use suction pumps, to their *CAST IRON, REVOLVING SPOUT AND CISTERN PUMPS*, for which they have obtained Letters Patent of the United States. For particular description and figures of our Pump, see August number of the Genesee Farmer, page 181. [9-tf]

The Water-Cure Journal.

THE WATER-CURE JOURNAL AND HERALD OF REFORMS, is published monthly, at *One Dollar* a year, in advance, containing thirty-two large octavo pages, illustrated with engravings exhibiting the Structure and Anatomy of the entire Human Body; with familiar explanations, easily to be understood by all classes.

The Water-Cure Journal, emphatically a *Journal of Health*, embracing the true principles of *Life and Longevity*, has now been before the public several years. And they have expressed their approval of it by giving it a monthly circulation of upwards of Fifteen Thousand Copies. This Journal is edited by the leading Hydropathic practitioners, aided by numerous able contributors in various parts of our own and other countries.

FOWLERS & WELLS publishers,
Clinton Hall, 129 and 131 Nassau-street, New-York.

The Phrenological Journal.

This Journal is a monthly publication, containing thirty-six or more octavo pages, at One Dollar a year, in advance.

To reform and perfect *Ourselves* and our *Race*, is the most exalted of all works. To do this we must understand the *Human Constitution*. This, *Phrenology, Physiology,* and *Vital Magnetism* embrace, and hence fully expound all the laws of our being, conditions of happiness, and causes of misery; constituting the philosopher's stone of *Universal Truth.*

PHRENOLOGY.

Each number will contain either the analysis and location of some phrenological faculty, illustrated by an engraving, or an article on their combinations; and also the organization and character of some distinguished personage, accompanied by a likeness, together with frequent articles on Physiognomy and the Temperaments.

The Phrenologicrl Journal is published by
FOWLERS & WELLS,
Clinton Hall, 129 and 131 Nassau-st., N. York.

D. M. Dewey Agent for Rochester; T. S. Hawks, Buffalo; B. R. Peck, Syracuse; W. C. Little, Albany.

Nursery of J. J. Thomas, Macedon, N. Y.

THIS Nursery now contains many thousand fine trees, of large, handsome and thrifty growth, consisting of Apples, Pears, Cherries, Apricots, &c., and the smaller fruits, of the best standard sorts, and most of the finest new varieties; ☞ in all cases they have been propagated for sale after being thoroughly proved in bearing. ☜

The collection of APPLES, consisting of many thousand large trees, mostly 7 to 9 feet high, embraceig the finest stanard varieties, and nearly all the valuable new sorts.

Very fine pear seedlings, at $12 per 1000, two years old apple seedlings, at $5 per 1000, Horse chesnuts 1 to 2ft high, at $5 per 100, &c., &c.

When purchasers desire, selections of the best for affording a regular succession of fruit throughout the seson, will be made by the proprietor.

A carefully assorted collection of hardy ornamental trees, shrubs, and herbaceous perennial plants, will be furnished at very moderate prices.

Trees for canal and railroad conveyance, will be well packed in bundles, enclosed in strong mats, with the roots mudded and encased in wet moss, so as perfecly to preclude all danger of injury.

All communications, post-paid, to be directed Macedon, Wayne Co., N. Y. Oct. 1, 1849.

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st.—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.

Rochester, May 1, 1849.

Removal to No. 21 Buffalo-st., Talman Block.

C. HENDRIX & SON.

Wholesale and Retail Dealers in Iron, Steel, Nails, Spikes, Shelf and Heavy Hardware House trimmings of all kinds, as cheap as the cheapest.

Rochester, Oct 1, 1849. [10-3t]

Bound copies of the present (tenth) volume of the Farmer will be ready for delivery on or before Dec. 1. Price 50 cents in paper—62½ cts. in boards and leather.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist. containing more than triple the matter of the former editions, having been wholly re-written. so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It contains more than

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole forming a handsome duodecimo volume, of over 400 pages, at the low price of One Dollar.

The work belongs to the author and is not traded. A liberal discount is made to Booksellers.

DERBY, MILLER & CO.,
Oct. 1., 1849. [10-3m] Publishers, Auburn, N. Y.

☞ The above work just received and for sale at the office of the Genesee Farmer. It can be sent by mail. Price $1.

" Every Man his own Physician."

THE HOME DOCTOR.

JUST PUBLISHED, a new and valuable book for every family in the country, and one that may be consulted with perfect safety. As its title page indicates, it is " THE HOME DOCTOR, or Family Manual, giving the causes, symptoms and treatment of Diseases; with an account of the system while in health, and rules for preserving that state. Appended to which are recipes for making various medicines and articles of diet for the sick room. The whole written for general use and daily practice, by John B. Newman. M D."

Also, accompanying this book, or separate, is " THE HERB BOOK, a book devoted exclusively to Herbs, giving their names, varieties description, medical properties and doses, use, time of gathering, and many other directions very useful for every family to know, and written expressly for family use."

The Herb Book is devoted solely to *Popular Medical Botany*, and will furnish on that point all the desired information wanted for general use.

The two books are put up and bound together and contain 200 pages, price 25 cents, or sold separrte at 12½ cents.

The symptoms of each disease are carefully given, so that one kind may be recognized from another, to prevent practising in the dark; also the treatment, a sketch of general physiology, and rules for keeping in health, together with observations on their causes, means of avoiding deleterious influences, and such other remarks as are deemed appropriate, for *both male and female*.

The book has been written with great care, in a plain, simple, common-sense style easily to be understood by every person, and by a practical physician and thorough botanist. We can recommend it with entire confidence, as being a work superior in all respects to any book of the kind ever published, at the price.

Families in the country, and especially those living in new countries and unhealthy climates, should not fail to procure a copy and have it at all times at hand, in case of sickness as they might thereby by some simple remedy save an expensive and protracted doctor's bill. Whether well or sick, such a book should be in every house as a safe and sure adviser in time of need, the directions given for persons in health cannot be too strictly attended to by all.

The price at which the book is sold is so low that every family may have a copy, and none should be without it.

The book is put up in Paper binding, and can easily be sent by mail. Postage only 6¼ cents to any part of the United States.

☞ Any person sending us *one dollar* by mail, and paying postage on the letter, shall have four copies sent him *free of postage*. Send in your orders, there is no risk in sending money by mail, it comes to us daily, and the books always reach their destination.

☞ Four families can club together and send a dollar bill, and have four books sent to one address.

WANTED Agents in most of the States to sell this work, almost every family will purchase it if carried to their doors. A small capital of from $20 to $50 will be necessary for each agent.

Address, *post paid*, FISHER & CO.
March 1849. 6 Exchange-st., Rochester, N. Y.

MOUNT HOPE GARDEN AND NURSERIES,

ROCHESTER, N. Y.

THE proprietors invite the attention of Fruit Growers, Nurserymen, and dealers in trees to their present stock now offered for sale. By recent large importations from Europe, and an extensive scale of propagation at home, we have obtained a stock of nursery articles as complete as any in the country, and we offer them to purchasers on the most liberal conditions.

The well known health, vigor and hardiness of the trees raised here, and the undivided and scrupulous attention given to every department by the propietors in person, offer great inducements to purchasers

STANDARD FRUIT TREES,

Consisting of all the best varieties of the *Apple, Pear, Plum, Cherry, Peach, &c.*, of suitable age and size for orchard planting. The principal stock is made up of the well known popular sorts, but all the new American and foreign kinds are in our possession, and can be furnished.

PYRIMIDAL AND DWARF TREES,

Consisting of select varieties of Pears on Quince, Apples on Paradise, and Cherries on St. Lucie, or Mahaleb stocks, for gardens, and limited grounds; and for nurserymen and others who wish to obtain fruit from their trees at an early day. We have for many years given special attention to this department, and therefore believe we have probably the largest and best stock in the Union.

GOOSEBERRIES, RASPBERRIES, CURRANTS, ETC.

Of these we have a large and complete assortment, and can supply them by the 100 or 1000. The best English Gooseberries are imported every year. All the new Currants can be supplied.

ORNAMENTAL TREES, SHRUB ROSES, ETC.

All the leading sorts, such as Horse Chesnut, Mountain Ash, Ailantus, &c., can be furnished by the 1000 or 10.000 at much below ordinary rates—besides a large collection of new and rare Trees Shrubs, Roses, &c., recently imported.

HEDGE PLANTS.

Buckthorn 2, and 3 years from seed; Osage Orange, 1 and 2 years; Privet; besides Evergreens, such as Red Cedar, Hemlock, Norway Spruce, Arbor Vitæ, &c., can be furnished to any extent required.

STOCKS AND YOUNG WORKED TREES FOR NURSERYMEN.

Pear Seedlings, 1 and 2 years transplanted; Plum do., 2 years from seed bed; Paradise Stocks, for Dwarf Apples; Mazzard Cherry Seedlings, 1 year; St. Lucie, or Mahaleb Stocks, for dwarf Cherries; Quince Stocks, of sorts commonly used.

Young worked tres for distant transportation.

NEW UPRIGHT QUINCE the most easily propagated, and freest grower. We have now obtained a pretty large stock, and can supply them in moderate quantities.

Wholesale Priced Lists and General Catalogues forwarded to all post-paid applications.

Sep 1, 1849. ELLWANGER & BARRY.

Albany Agricultural Warehouse,

No. 369 & 371 South Broadway.

THE Subscriber having during the past season suffered in common with many of his fellow citizens—his warehouse being consumed, &c.—has procured the spacious new store erected for his business, No. 369 and 371 South Broadway, where he has an extensive assortment of all the best and leading AGRICULTURAL IMPLEMENTS and MACHINES in use. From his long and successful experience in the manufacture and sale of articles in his line, he flatters himself that he can suit the wants of the farming public to the best of its kind, and on as favorable terms as any other manufacturer in the States.

Among his assortment are his celebrated Horse Powers, Threshing Machines and Separators.

Smith's Patent Cornshellers for horse power.

Clinton Hand Shellers, single and double hopper; Grant's Patent Premium Fanning Mills, for power and hand, &c. &c.

Also, a complete assortment of Garden, Field and Grass Seeds.

[9-tf] H. L. EMERY.

DR. KITTRIDGE'S

CELEBRATED SPRAIN & RHEUMATIC LINIMENT.

NO better preparation was ever offered to the public for the following complaints:—Rheumatism, Lame Backs, Bruises, Sprains, Stiff or Contracted Tendons, Swellings, Stiff Neck, Nervous Headache, Earache, &c

This Liniment is likewise excelled by none in its use upon Horse and other Animal Flesh, for curing Spavins, Sprains, Sweenies, Galls and all flesh wounds.

Price Fifty Cents per bottle. Prepared and sold, wholesale and retail, by A. GRANT,
No. 43 Exchange-st., Rochester, N. Y.

Agents—Isaac Mitchell, East Bloomfield; S. D. Lundy, Waterloo; W. P. Matison & Co., Seneca Falls; E. W. Cheney & Sons, Canandaigua; Clark & Pierce, Livonia; H. Tilton, Moscow; Whitney & Lafflin, Mt. Morris; Ely & Co., Clyde.

October 1, 1849. [10-tf]

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office.

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Premiums for 1850!

WITH a view to extend the circulation and increase the usefulness of the Genesee Farmer, the Proprietor offers the following liberal premiums to the friends of Rural Improvement, who may interest themselves in procuring Subscribers to the work:

1st. A well selected Agricultural Library handsomely put up in a case, and worth thirty dollars, to the person that shall send in the largest number of subscribers, at the club prices.

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When it is recollected that our terms to clubs are only from 37½ to 40 cents a volume, for one of the ablest and most valuable works in the Union, every reader must see that it is only by a extended circulation that the Genesee Farmer can pay any profit whatever to the Editor and PROPRIETOR. Kind friends! will you not lend us a helping hand in this noble enterprise, for collecting and diffusing useful knowledge relating to agriculture; and for the elevation of the profession? DANIEL LEE.

Editor and Proprietor.

A CHEAP WAY TO OBTAIN GOOD BOOKS.

No reasonable person can object to paying fifty cents for the Farmer for 1850. This being granted, any person who will send us ten names and five dollars, shall have ten copies of the Genesee Farmer for a year and Johnston's Agricultural Chemistry—a work that cost $1,25 at the book-stores.

If he will send ten dollars and twenty names, he shall have Busingault's Rural Economy in addition to Johnston's Chemistry as a present. At this rate, a young man who has a little leisure may easily obtain a good professional library by procuring subscribers to the Farmer, he getting one-fifth or one-fourth of all the money received, in good books!

WE are indebted to some kind friend for a handsome pamphlet containing the Transactions of the New Haven Horticultural Society, and an Address delivered at its Annual Fair, on the 29th of September last, by S. B. PARSONS, Esq., of Long Island. The address is excellent, and we shall next month give some extracts that will be interesting to all.

A NEW ARTICLE OF FUEL.—Our attention was drawn a few days since to a load at the door of a citizen in Albany, which in appearance resembled unburnt bricks. Upon inquiry we found that it was an article of fuel, manufactured in the vicinity of Newton's Corners, a few miles out of the city, from a swampy piece of low land which furnishes an article much resembling peat. We learn that this muck or peat is thrown into a mill and ground, then pressed in the shape of bricks for the purpose of thoroughly drying, when it is ready for use. It is considered to be quite as cheap as hard coal, and preferable to either coke or coal, for grates, there being no gas or smoke from it. Thousands of tons have already been taken from a single acre in the above vicinity, affording a nice profit to the owners and manufacturers.—*Troy Budget.*

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THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

VOLUME XI, FOR 1850.

IN issuing a Prospectus for the *Eleventh* Volume of the GENESEE FARMER, the Publisher considers it unnecessary to state at length the design and objects of the work, or repeat former pledges as to its management. Those who read the Farmer are the best judges of its value and character, and can decide whether it is worthy of continued support—and those who are unacquainted with it are invited to examine its pages. In POPULARITY and USEFULNESS it now ranks *first* among the various monthly journals of its class published in America, and every proper effort will be made to sustain its HIGH REPUTATION as an earnest and valuable aid to the Farmers and Fruit Culturists of the Country.

The new volume will commence on the 1st of January, 1850. It will be published in the best style, as heretofore—on HANDSOME and CLEAR TYPE and *superior paper.* The volume will be APPROPRIATELY ILLULTRATED—containing numerous and expensive Engravings of *Farm Buildings, Improved Implements, Domestic Animals, choice Fruits, Flowers, Shrubs, &c.* Indeed, in typographical aspearance, we design to make the volume for 1850, what the present one is pronounced, the *most beautiful Farmer's Journal* yet issued in this country. ☞Each number will contain TWENTY-FOUR ROYAL OCTAVO PAGES! making a large and handsome volume of about 300 pages, (with Title Page, Index, &c., suitable for binding,) at the close of the year.

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TERMS—INVARIABLY IN ADVANCE—AS FOLLOWS: Single Copy, 50 Cents. Five Copies for $2, and any greater number at the same rate, if directed to individuals. If directed to *one person*, Eight Copies for $3, and any additional number at the same rate. The entire volume sent to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

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DANIEL LEE.
November, 1849. *Rochester, New York.*

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DANIEL LEE & D. D. T. MOORE, EDITORS.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

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☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

ADVERTISEMENTS.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE. The circulation of the Farmer is from FIVE to EIGHT thousand LARGER than that of any other agricultural journal published in the United States.

☞ Advertisements, notices, &c. should be forwarded on or before the 15th of the preceding month, to secure insertion in any specified number.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—JANUARY, 1850. NO. 1.

53436

OUR CAUSE AND OURSELVES.

Every one must have observed the progress of Agricultural Improvement during the last twenty years. The history of no century since man left that best of farms, in which "grew every tree that was pleasant to the sight and good for food," exhibits such a rational and rapid progress in the art that feeds the world. Farmers are fast becoming reading and thinking men — they are fast laying aside old prejudices and notions and signs, and are beginning to realize that common sense and intelligence can be as profitably and as honorably employed in cultivating a farm — an orchard — a garden — or in caring for the creatures over which God has given man dominion — as in any other pursuit of life. The appearance of farms and houses, barns and stables, gardens and orchards, in almost every neighborhood, proclaim this improvement, in language not to be misunderstood by the most careless observer. The slovenly, ill-managed, unproductive farm of other years, has been succeeded by one that is both a source of pride and profit to its possessor. The barns and dwellings whose loose boards were shaken like reeds by the wind, have given place to others that afford safety to the crops and comfort to the inmates. The "yard," so unsightly to behold, — the receptacle of refuse and rubbish, has in many cases been transformed into the flower-garden, or lawn, delighting the beholder with beauty and fragrance, and denoting the improved taste and increased happiness of the owners.

This progress in agriculture is doing much to improve the unstable and roving disposition of our people. A well kept garden and orchard, next to wife and children, gives home its charm. To him who loves his garden, or orchard, or farm, every plant — every tree, — is a friend with whom he communes. He has watched over its infancy — supported it in its weakness — given food in the time of need, and water when it was parched with thirst. He has curbed its disposition to ramble, and under his guidance it has grown up with a fine form and good habits. In return, it has poured into his lap its offering of gratitude. It has delighted him with its beauty and fragrance; and, as if this was not enough, it is daily inviting him to partake of its fruits. A man who thus erects Nature's temple around his home, and worships her there, will not be apt to relinquish those pleasures for a "*new home*" in a strange land, or the *gold of California;* and should stern duty ever compell him to desert the much loved spot, it will be dear to his memory. He will often say in spirit —

> "An exile from home, splendor dazzles in vain,
> And I sigh for my lonely thatched cottage again."

This gratifying improvement has been effected in a great degree by the Agricultural and Horticultural periodicals. And we think we can with propriety say that the Genesee Farmer has done its share of the work. Its low price has given it an unprecedented circulation, and thrown it into thousands of families where light was needed. The ability of its writers and correspondents, who are practical men, have given it a reputation as a reliable Farmer's Journal. This, together with its convenient form for binding, has secured it a place in almost every Farmer's Library.

Our present volume we intend to make more attractive and more valuable. We shall endeavor particularly to improve our Youth's Department. We shall endeavor to interest, and while interesting, instruct the Youth.

Parents should teach their *children* to love and practice gardening. It will learn them system and order, patience and hope; it will give strength to the body and the mind; it will improve the head and the heart. It will teach them self-reliance — that success is the reward of industry and perseverance, while failure is the result of negligence. It will teach them to

> "Look from Nature up to Nature's God."

What affords pleasure like visiting the scene of our childhood, and there beholding, growing in majesty and pride, the trees we planted in our childish glee. What music so sweet as the shouting of the tempest in their lofty tops.

We shall endeavor to enforce this duty in our Ladies' Department, as also to urge upon our fair readers the necessity of devoting a portion of their own time to gardening. It will not only afford pleasure, but health. It will furnish the luxuries — the poetry of life, and the health essential to their enjoyment. Work among your flowers and plants every day during the season; it is the best cosmetic in the world — it will drive away that sallow, billious look. It will give you a color more beautiful, more lasting than rose or carmine. It will send the glow of health to the cheek, and joy to the heart.

With these few remarks on the progress of the cause in which we are engaged, and ourselves in particular, we wish our friends a Happy New Year.

THE STUDY OF AGRICULTURE.

THE commencement of a new year is a capital time for every young farmer to begin the systematic study of his profession. No matter how thoroughly he fancies that he has already investigated all the phenomena of tillage, the growth of crops, and the feeding and improvement of domestic animals; in each of these departments there are many important truths which he and all others have yet to learn. No person of common understanding ever sought earnestly after useful knowledge, who did not gain something truly valuable for his labor. The rewards of study, when directed to noble objects, and good purposes, are certain. Successful agriculture, by which mankind are both fed and clothed, and the land made better, from year to year, is the basis of all social, all moral, and all intellectual improvement. Pursue the opposite course,deteriorate the soil, and you inevitably compel the whole community to give more and more labor for their daily food and necessary clothing.—You force them to separate farther and farther from each other's habitation, and ultimately to devote the time of all to the one pursuit of supplying the first wants of their common nature. The cultivation of a badly exhausted soil exclusively, from which much is needed by society, and little obtained, must check all progress in learning, science and the arts, by compelling every human being to give a great deal of the "sweat of his face," for a mere subsistance. We repeat the idea, that an *improving system* of tillage and farm economy, is the only true basis of all human elevation. The soundness of this position being conceded, it follows as a legitimate corollary, that agriculture conducted in obedience to the laws of nature, is the great hope of the world—the paramount interest of all of woman born.

It is not, then, to remove the tedium of an idle hour that one should study the natural laws which govern the results of rural industry. There is a higher purpose to be attained, a far nobler object near at hand, and within the reach of every studious mind.

The laws which God has appointed to regulate the growth of plants and animals on the surface of the globe, can only be wisely interpreted, by the careful analysis of all known facts which relate to the organization and disorganization of these living beings.

These *facts* and the *things* to which they belong, must be critically examined separately, and in all their natural relations one to another. It is an intimate knowledge of all the known things and known facts that pertain to agriculture, which makes one a scientific farmer. This knowledge comes not by intuition. It is the rich recompense of experience guided by sound reason and mental labor. Not only the muscles, but the mind of man must make an effort before it is possible to develop the natural powers with which its Creator has endowed it. The awaking of sleeping thought, the encouragement of young reason to exert its faculties and apply them to the patient investigation of natural phenomena, as they really present themselves in all farming operations, are the ends aimed at by much of what we write for the agricultural press. If we could by any means persuade every reader of the Farmer to study the slight difference which often exists between a good soil and a poor one, or a productive and an unproductive one, we should probably be the happiest man in America.

No fact is better established by human testimony, than that 100 pounds of common plaster of Paris (sulphate of lime) has added 2000 pounds to a crop of clover, grown on an acre of land. On this acre there are 43,560 square feet; and to descend no more than 12 inches into the subsoil, in estimating the whole weight of the earth concerned in making the crop, there are at least 4,356,000 pounds of solid matter, besides the 100 pounds of gypsum on the acre. Clearly the whole difference in a soil which produces 1000 lbs. of clover hay to the acre, and one that yields 3000 lbs. is, that the latter contains *one part in forty-three thousand five hundred and sixty of a particular salt*, more than the former. This salt contains less than 22 lbs. of sulphur; and less than 50 lbs. of lime in 100, the balance being water of crystalization, and oxygen combined with sulphur to form sulphuric acid, or oil of vitriol. On soils that contain more than a pound and a half of lime to the cubic foot, or some ten thousand grains, the addition of fifteen grains of plaster to the square foot, or 100 pounds of soil, produces a decided effect on its fertility. Now, it is by no means necessary to determine in what way this fertilizer operates to augment the crop, to render the demonstration complete that an extremely slight change in the condition of a soil is adequate to produce a remarkably large difference in its productiveness.

One hundred pounds of guano have given an increase of 40 bushels of corn in one field; and a gain of 100 of potatoes in another. That the atoms in this powerful fertilizer create any new ones in the soil or in the atmosphere above it, or that they furnish all the atoms in the crop of corn or potatoes, is not to be supposed.

The most obscure point in these interesting phenomena is, how 20 lbs. of available sulphur and a like weight of available phosphorus should give an addition of 40 lbs. of each of these elements of bread and meat, to a single crop, after their application in gypsum and ground bones.

We find on a critical analysis of clover, that the 2000 lbs. grown by 100 of plaster, contain twice as much sulphur as the plaster when applied to the land. We can only account for this fact by saying that available sulphur being in the soil but in a deficient quantity, the supply of a little more to the growing plants enables them to extend their roots deeper and wider into the earth, and thus imbibe sulphur-salts as well as other aliment, from a great distance. In other words, as the land gives a small crop of clover or grain without plaster,it must contain a little of all the things demanded by nature to organize said crop. Being, however, diluted and widely diffused in the mass of sand, clay and iron, the roots of small, feeble plants can imbibe but few of the fertilizing atoms which really exist in the surface and subsoil, from inability to reach them, without the aid of additional food to develope and extend the roots of those dwarfed beings. It is our opinion that starved plants uniformly fail to consume more than a fourth of the elements of bread and meat present in the soil, and that many of these dissolved atoms are needlessly lost to the husbandmam, from the lack of a little timely nourishing of the crop, when plants are from four to ten weeks of age, and forming their tissues.

In agriculture, much depends on times and seasons, as well as on tillage and seed. A rain in summer, is called a "season" at the South; as without *timely* rain, the hope of the corn-grower is blasted.

A slight affair often changes the hygrometic power of soils. The increased condensation of dews and of gases, and the greater facility for the descent of water into the presence of the various soluble and fertilizing salts in the subsoil, and for the free ascent of water thus charged with the food of crops, upward and around the roots of needy plants, are all matters worthy of profound study. Draining and irrigation in all their bearings on rural economy, are far from being either well, or generally understood. We find that a gallon of the limpid water in the dry season of summer taken from the Genesee river, contains as much of the elements of wheat as twelve gallons of the water taken from the Savannah where it falls over the granite rock a few miles above Augusta.

What rain and snow water extract from soils and earths, and what this liquid takes with it into the circulation of growing plants, are points to which the writer has devoted considerable attention. Nothing more forcibly indicates both the wisdom and goodness of Providence than the fixed solubility of all the atoms appointed to build up the bodies of all vegetables and animals.

Change in a slight degree the *insolubility* of the shell of an oyster in the water of the sea, while the animal lives, and the speedy extinction of the race would soon follow. Render the elements of this shell equally insoluble in sea-water before the oyster imbibes the dissolved atoms, to form its stony covering, and no such protection could be had. If the earthy elements in the bones of a child, which are dissolved in the milk of its mother, remained equally soluble in the skeleton of her offspring, it could never stand nor sit up a moment in its life; nor could it long survive the absence of all bones, whether to protect its brain and heart, or for use in locomotion.

If for no other purpose, the science of agriculture should be studied for its humanizing, its moral influence on all rational beings as individuals, and on whole communities, states and nations. Let all good citizens unite with us in fostering the professional education of young men who are to follow the plow, and the general diffusion of useful knowledge that must certainly result from this course, will be invaluable to the country.

This effort to scatter scientific information broadcast over the whole Union, is free from the taint of any political, any sectional, or private objects. Every where one sees in his travels, valuable fertilizers wasted; wet fields that require draining; old fences that need repairing; briars and bushes which ought to be eradicated; and impoverished soils which may be economically renovated. But the great work of improvement is fairly under way. Scores of agricultural journals, and thousands of good men and true are devoted to the task of changing for the better the whole scope of American husbandry.

AGRICULTURE.—It is an innocent pursuit that can do injury to no one. It invades no man's just rights, and predjudices no man's safety, health, peace, or reasonable enjoyment. It is a beneficial employment, for whoever cultivates the earth, and covers it with rich and golden crops, renders it more beautiful; and whoever causes the earth to yield its fruits, increases the means of human comfort and subsistence.

The only way to be permanently safe is to be habitually honest.

COMPOSITION OF BONES AND GUANO.

BONES differ slightly in composition in different animals. The bones of the same animal vary in their relative proportions of earthy elements at different ages. Young animals have more gelatine and less phosphate of lime in their bones than old ones. The following composition of the bones of a cow, will give the farmer a fair idea of the constituents of this substance as they commonly exist when applied to crops as a fertillizer:

Organised combustible matter [gelatine]	33⅓
Phosphate of lime	55⅓
Phosphate of magnesia	3
Carbon of lime	3¾
Soda and common salt	3½
Chloride of Calcium	1
	100,0

One hundred pounds of Gelatine consists of,

Carbon	50,37
Hydrogen	6,33
Nitrogen	17,92
Oxygen	25,35
	100

As one-third of the weight of bones is gelatine, and 100 parts of gelatine contains 18 of nitrogen (less a small fraction,) it will be seen that 6 per cent of dry bones consists of organized nitrogen, an important ingredient in wheat, and the seeds of other plants.

As applied to land, bones contain about 18 per cent of water; Ichaboe guano from 20 to 25 per cent.—It is an important fact, that bones contain more than twice as much *phosphate* as guano. The composition of Ichaboe guano is thus stated by Prof. Johnston in a late Journal of the Highland Agricultural Society, as the average of several hundred analyses:

Organic animal matter	56
Phosphate of lime and magnesia	26
Salts of soda	6
Salts of potash	trace.
Silicious matter	2
	100

By referring to the analysis of bone it will be seen that there are 55⅓ lbs. phosphate of lime and magnesia in 100 of bone.

Many interesting experiments have lately been tried in Scotland with bone dissolved in sulphuric acid, (oil of vitriol.)

It has been found that four, and in some cases two bushels, dissolved in acid, produced as good crops of turneps as sixteen or twenty bushels applied in the old way of grinding and using the dust.

Sulphuric acid is itself a valuable fertilizer alone; while it renders both the *gelatine* and *phosphates* in bones available *at once* to all plants, when placed near their roots. Prof. Johnston recommends the use of half as many pounds of acid undiluted as there are of bones, in which the latter are to be digested. The process in few words may be described as follows:

Break the bones into small fragments with an axe or hammer and throw 60 or 100 lbs. into a water-tight barrel set partly into the ground in a back yard or garden. Add half as many lbs. of boiling water as bones, and a like quantity of strong sulphuric acid. Stir constantly the mass with a stick. A violent effervescence will take place by the escape of carbonic acid.

ORGANIC ACIDS—PARASITE PLANTS—MINERALS, &c.

Boussingault found that young plants of trefoil watered with solutions of *oxalate* of ammonia diluted to 600 times its weight, died in the course of eight or ten days; although other plants similarly situated watered with distilled water did well, and blossomed. As ammonia is known to be highly useful when pure, or in a carbonate, if properly diluted, the bad effect of the oxalate was attributed to the oxalic, or *organic* acid.

Question. Do not parasite plants that grow on the trunks of trees draw their nourishment from juices or sap which was partly elaborated in the organs of the parent, or suffering plant?

Answer. This is a disputed point. Cryptogamous plants grow on old rails, the roofs of houses, and granite boulders as well as on living trees. Any *nidus*, or root-hold that will yield the little mineral salts which the plants require, whether extracted from stone or wood, seem to answer for those that need little beside air and water for their full developement.

Q. Why do you call air and water *minerals*, or mineral elements?

A. Because water and gases or air, form a large portion of the mineral or earthy crust of the globe. *Oxygen gas*, which forms 8 parts in 9 of pure water, weighs more in granite rock, and in both clayey and sandy soils, than any other simple element or mineral. Water also exists as one of the constant elements of the hardest and most durable crystals.

Q. I had thought that oxygen or vital air in the atmosphere, was as different from stone, or granite rocks as one thing can be unlike another. Explain how it happens that the air we breath and granite are to a large extent composed of the same simple element?

A. In 100 lbs. of the atmosphere there are 21 lbs. of oxygen. If 48 grains of a metalic base called *silicon* be burnt in 52 grains of this gas (oxygen) there will be formed 100 grains of a mineral called *silica* which is pure flint sand, such as is used for making glass. More than half the weight of granite is silica which has *acid* properties and is called by chemists "silicic acid." When crystallised, the mineral is usually called *quartz*. This silicic acid combines chemically with *alumina*—the basis of clay—and with magnesia, potash, soda, and lime, to form *felspar* and *mica*, the other minerals in granite, beside *quartz*.

Q. You say that oxygen forms 52 in every 100 parts of pure sand. In 100 lbs. of pure *alumina* is there any of this vital gas; and if any, how much?

A. In 100 lbs. of pure alumina there are, according to Prof. Kane,

Aluminum	53.3
Oxygen	46.7
	100.0

Q. Is pure pipe clay, or porcelain clay pure alumina; or is it some compound with other minerals?

A. The very purest clay in existence, such as is used for making China-ware, is properly speaking, a *salt*, or a compound formed by the union of about 60 parts of silicic acid (silicia) with 40 parts of alumina. Prof. Johnston thus states the composition of this mineral having water in its composition:

Silica	46.92
Alumina	34.81
Water	18.27
	100.00

In the above compound which forms pure clay, the amount of oxygen contained in the mineral is greater than the three other elements, silicon, aluminum and hydrogen put together.

Thus, in the silica there is 52 per cent	55 parts.
In the alumina 46.7 per cent	16 "
In the water 8-9 of the whole	16 "
	87

I have omitted fractions. The hydrogen is united with oxygen in the proportion of 1 lb. in 9 to form water.—*From Lee's Study of Soils.*

"JUMPING AT CONCLUSIONS"—AGAIN.

BY A YOUNG DIGGER.

Messrs. Editors:—In the December number of the Farmer I made a few remarks on "Jumping at Conclusions," to which Mr. J. H. Watts replied in what I considered a very bad spirit.

Mr. W. accuses me of "*attacking numerous correspondents*," (although I made no allusion whatever to any correspondent but himself,) which he appears to think very presumptious for a "*youngster*." I think I "*attacked*" no one, but merely gave a few hints regarding the too hasty adoption of opinions and theories founded only on single experiments, and without due regard to other influences that might have caused, or at least have affected the result. In this I am happy to be supported by the wisest and best—by both scientific and practical men, who have seen and lamented the evil. Mr. Garbutt, in the last number of the Farmer remarks that "*one or two experiments,* APPARENTLY *favoring a theory, should not be taken even as a* PROBABILITY *of its correctness.*" But Mr. Watts founds his theory on a single experiment. Of course he was not of the opinion that digging around and manuring his pear tree would have had a tendency to injure it, or he would not thus have treated it. Mr. W. started in the spring with the idea that good culture was necessary to a healthy tree and fine fruit, and like a sensible cultivator removed the grass from his tree and gave it a dressing of manure. But, from some cause or other the tree *died* of fire-blight, and without waiting to repeat the experiment on other trees, in different seasons, and under different circumstances, Mr. Watts jumped at the conclusion that his tree died of a *surfeit*, and the only preventive was to give trees *hard fare* and *short allowance*. He not only founded his theory on a single experiment, and one contradicted by the experience of nine out of ten (if not the tenth,) but publishes his baseless theory to the world as an important discovery, and is highly offended that a "*young digger*" should presume to question its correctness. How much confidence can there be placed in a theory thus rashly adopted, or in the opinions of a man so hasty in his conclusion?

Mr. W. says: "It is no small satisfaction to me that Mr. Barry was willing to notice my article." And it is no small satisfaction to me that Mr. B's opinion of Mr. Watts' theory and my own, are somewhat similar—that it is one of those hasty theories, not very injurious, because not likely to be adopted by men of thought.

I am called upon for a preventive of the blight.—The matter has been discussed by the best Horticultural writers in the country for the last few years, and various causes assigned, such as "*frozen sap*"—"*insects*"—"*effect of sun*," &c., each theory having its advocates. While such men as Hovey, Downing, Barry, &c., disagree, as to the cause, I think the ignorance of a young digger, on this point, excusable.

Mr. Watts appears to derive peculiar pleasure in calling me a "*youngster.*" I hope my follies will cease with my youth, and wisdom increase with my years, that in my *old age* I may not propagate baseless and visionary theories unworthy even the young and inexperienced. But, I have learned even in my youth not to form opinions hastily and without due reflection, and especially not to publish illy matured theories to the world. This Mr. Watts has yet to learn. I have learned also, that when my opinions are published, they are common property, and to bear with good nature all comments, whether favorable or otherwise: this Mr. Watts has to learn in his *old age.*

Mr. Watts concludes by saying that he will "*leave me with the potato rot.*" I am willing to be left in the contemplation of this terrible disease, its cause and its consequences to the human family; but I am sorry to leave Mr. Watts cultivating *weeds* and *grass*, in the vain hope of raising pears, forgetting that "what a man soweth, that shall he also reap."

AGRICULTURAL EDUCATION.

At no period in the history of our country has Agricultural Education absorbed so large a share of attention as at the present time; the press throughout its entire extent teeming with articles in reference to it. This bespeaks the approach of a more enlightened epoch to the Agriculturist; and when the institutions anticipated shall be established, we may confidently expect, that the community of Farmers will be elevated to that exalted position, to which they are entitled by the nobleness of their vocation.

That Agricultural Colleges will be founded at no distant day, cannot be reasonably doubted — many circumstances inducing the belief. It is highly probable that the subject will be taken into consideration during the next session of Congress, but no efficient aid need be anticipated from that quarter. The objection that will be urged by the members of Congress, to an appropriation of Government funds for Agricultural Education, will be the great dearth in the Public Treasury, occasioned by the effectual drainage resulting from a protracted session, exorbitant mileage, foreign war, &c., &c. Thus, while they are liberally helping themselves, and annually expending large amounts in superfluous military preparations, and in sustaining an expensive institution for giving instruction in the horrid art of human butchery; the great interests of Agriculture are neglected, upon the condition of which depends that of the nation. Farmers should look into these matters, and when the promotion of their purposes is prevented by the cry of government poverty, they should inquire into the cause of that poverty.

Certainly no course of Legislation can be more judicious, than that which insures prosperity to that class of citizens that forms the reliable support of our boasted institutions. Republican France seems to be conscious of this fact, and in the organization of her twenty Agricultural Schools, she is adopting the most effectual means to nourish and sustain the divine plant of liberty.

Though we do not look with any hope to the Congressional decisions relative to this matter, still an agitation of the subject may be productive of some good. The brightest signs of the times are seen in the Empire State, and her Chief Magistrate has won a laurel, that will cause his name ever to be embalmed in the annals of Agriculture. The honor is ascribed to him, of being the first individual in the Union, who gave an official recommendation for the establishment of an Agricultural College, and that recommendation is meeting with a hearty response; and we are sanguine in the belief that New-York will lead the van in this important system of Education.

The means for obtaining that practical knowledge requisite for the Farmer, is at present very limited, the common College education, requiring four years of classical study, being wholly inapplicable to his wants. Therefore, institutions of a different nature must be organized; and why the Public Treasury, that has ever been accessible to the educational wants of the few, should be sealed against the necessities of the many, is a matter of no small moment. But while we would censure Legislators, we would not permit the Farmers to escape unnoticed, who if anything, have been more in fault, for not demanding their rights — which, instead of doing, they have denied the very existence of, by condemning Agricultural Education. But thanks, that "a change has come over the spirit of their dream," and that that semi-civilized notion, long cherished, is fast becoming obsolete. And we express it as our firm conviction, that the time will arrive when an illiterate tiller of the soil will be numbered among the things that were.

What a mistaken idea, that ignorance and Agriculture are fit companions! As reasonably might we assert that the rising of the sun would rivet the clouds of darkness to the earth. There is no vocation to which science more effectually lends its aid, and no one should be more intimately acquainted with the laws of nature, than he whose daily employment brings him into communion with her. The Farmer, then, should become thoroughly educated, that he may understand the delicate operations of vegetable and animal life, so as to be able to render that timely and efficient assistance that will insure a perfect development of every part, and that he may be qualified te enjoy the beauties by which he is surrounded. For the enlightened mind is at home in the field, and every object that meets the sight awakens a train of thought of transcendent sublimity. Whether the minute insect, the delicate blade of grass or the expanded wild flower blushing in the simplicity of unaffected nature, attracts his notice, he perceives on each the impress of Deity, blending together most beautifully the functions of every part, for the consummation of the object to be attained.

Then, in view of the two-fold desirable result produced by an Agricultural Education, and the admitted point, that the advance and elevation of this noble art is dependent upon such education, it becomes the duty of all Agricultural Journals to lend their powerful influence towards strengthening the feeling now striving for the ascendancy. *Germantown, Pa.*, 1849.

Wood-Houses.—There is no convenience attached to a farm establishment of more importance than the wood-house. It need not be an expensive structure, although both convenience and economy require that its size, and the materials of which it is formed, should be adapted to the size and circumstances of the family. As a general thing, it should be a *wood-house* and nothing lessnor more. No tools or farming implements should be housed there, for these require a separate place.

SALT AS A MANURE.

EDS. GENESEE FARMER:—I some time since received a note from the *Secretary of the State Agricultural Society*, B. P. JOHSON, requesting my experience in the use of salt. With your permission, Messrs. Editors, I will reply through the columns of your valuable and widely circulated paper, and thus give the farmers of the whole country the benefit of my experience. The following is the note of the Secretary:

> STATE AG. ROOMS, Albany, Aug. 2, 1849.
>
> *Mr. John Park — Dear Sir:*— I saw a notice in a Rochester paper of your success in applying salt to your wheat. Will you oblige me by informing me what is the difference in the crop prepared with salt and that which was treated in the ordinary way — both as to the yield per acre, and the quality of the grain. Respectfully yours,
>
> B. P. JOHNSON, *Sec'y State Ag. Society.*

Agriculture is, no doubt, the first and oldest art; for we read that Adam's eldest son was a tiller of the ground; and yet, through the lapse of centuries, how slow has been its improvement. It was not until the last half century that it received any material impulse by way of advancement. It is not enough for a man to be a practical farmer; he should understand something of astronomy and geology, and a knowledge of chemistry is most essential.

Perhaps in Great Britain farming is better understood than in any other part of Europe; and yet there it is only in its infancy. I know of no nation more worthy to be imitated, in many practical points of rural economy; but, as the climate of the United States is so different, the same mode of farming will not answer both. Great Britain being an island, (and no part of it is 100 miles from the sea,) let the wind blow from what point it will, it is a sea breeze, subject to sea fogs, and a continual moist atmosphere, which is very fertilizing. Cattle in England need no salt as in this country, and salt might not benefit the land, but salt judiciously used here is a most valuable mineral manure. I have been trying it several years, and it answers my most sanguine expectations.

Salt as a manure has several advantages over barn-yard manure — for the latter does not always get sufficiently rotten to kill noxious weeds — and we often get a better crop of red root, Canada thistles, &c., than is desirable. Second, the expense of manuring with salt is not a fifth that of barn-yard manure, which I calculate as follows:

24 loads barn-yard manure, say	$0,00	
2 men, putting on ground, 2 days each, at 6s.	3,00	
1 span horses and 2 wagons, 2 days	3,00	=6,00
1 barrel salt per acre	1,00	
Expense of sowing	6	=1,06
		$4,94

In this hot, dry climate the ground is full of innumerable quantities of visible and invisible insects, some of which destroy the seed. These insects must live on something, and some, no doubt, subsist on the nutritious properties of the soil, and the manure laid thereon, as it is well known that rich land and gardens mostly abound with worms. Salt will kill most of these, which of course puts a stop to their living on the fat of the soil, and their small dead carcasses will add something towards enriching the land, which with the fertilizing properties of the salt makes it in good condition to receive the seed. On fallow, or before seeding, I consider salt of the greatest advantage. A small quantity, say one bushel per acre, on wheat or meadow, sown in the spring, before it begins to vegetate, will greatly strengthen both.

I now proceed to give an account of my experiments. The first was on a small patch of corn about a foot high. I took a little salt in my finger and thumb and dropped on each hill; before many hours the leaves began to flag, and in two or three days they were all dead. I thought I had lost my crop and took no farther notice. About too weeks after I was surprised to see my corn up again, nearly as high as before. It was evident there was not a sufficient quantity to kill the seed. I also threw a small quantity on a white thorn fence. It killed the leaves, having the appearance of a blast. They came no more out that season.

I was not discouraged at my adventure, but knowing the effect of salt on the animal kingdom, and its near approximation to the vegetable, I determined to "try again." Having a seven acre field that had received no manure for four years, and then only a small quantity, I plowed it up the latter part of the 9th month, 1847, for the next summer fallow. In the 5th month following, 1847, I plowed it again after which I sowed seven barrels of salt, being a barrel per acre, in two of which I mixed two pounds of arsenic and sowed it in the middle of the field. I could not perceive any advantage where the arsenic was used, over the other part; all appeared alike. My object in using it was to make sure work in destroying the insects. About two weeks after I dragged it both ways, and the beginning of the 7th month plowed it again — kept the drag at work — and about the middle of the 8th month I plowed it the fourth and last time, (including the last fall's plowing.) On the 1st and 2d of the 9th month I sowed it with Soule Wheat, two bushels per acre. It was a fine growing time; it came up luxuriantly. Most of the blades were half an inch broad, and it would have jointed had I not eaten it off with four horses and two cows for three weeks, after which I spread their dung.

This was a novel mode of farming, and great interest was manifested in the neighborhood to see the result. Last winter was very unfavorable for wheat — severe frosts and rains with little snow; but it had good root-hold, and was well covered, which prevented its being thrown out. The past spring was backward, yet it looked well the early part of the 5th month. None was to be seen in the neighborhood to equal it. I commenced cutting it on the 11th of the 7th month. The heads were of a good size, and the yield close upon *forty* bushels per acre. The straw attracted particular notice, so beautifully bright and white; whether from the effects of the salt or not, I cannot say.

The next experiment was as follows: In one corner of an eight acre field was a complete swamp, of about an acre. Four years ago I commenced plowing it up, and although I selected a dry time, the horses sunk in up to their knees. My neighbors thought it was labor lost. I dug an open ditch at the low side and made very narrow chanals, ridged and rounded them well up, and furrowed as deep as the ditch would allow. I tried turneps for the first crop, but from the insects and the hot dry weather they came to naught. Next year I tried potatoes, but with no better success — it was too wet. I tried potatoes again, and managed to raise a few. Next year I sowed it with barley, and had a fair crop. I found this swamp improving every year. Last year I plowed and summer fallowed the remainder of the field, where had been meadow for several years. In the fall ('48) I sowed both the fallow and the swampy piece with wheat. It was a fine growing time and all came up well. The swampy part having been cropped so often, did not look as thrifty as the fallow. I got a very fair crop — not less than twenty bushels from the swampy acre. Having had a very good crop from the whole field, I concluded to put it all in wheat again. Preparatory to this I plowed it *once* and on the swampy acre I sowed about two bushels of salt — none on the fallow. All looks at this time very well, but the swampy piece looks stouter than the other part — another evidence of the beneficial effects of salt as a manure.

The following anecdotes will further show the utility of salt in killing worms, grubs, &c. A person at York, England, having in one part of his garden very rich ground of about 11 square yards, on which he could never raise any thing — it was sure to be destroyed by worms and snails. By way of experiment he sowed about three quarts of salt, and plowed it in, after which there was no further difficulty; it produced satisfactorily and luxuriantly.

My wife, who is partial to a flower garden, says when she wished to preserve any particular flower from snails, (which abound in English gardens,) she would enrich it with salt. The snails would come to the margin of the salt and turn away, which she discovered by the slimy path they make.

Further, if you put a few grains of salt on a leech that has been extracting blood, it will instantly vomit it out; a great many die, and those that survive linger along, and never appear to regain their health; while those that have the blood squeezed out of them with the finger and thumb, soon (with care) become healthy and fit for use again. John Park. *Gates, Monroe Co., N. Y.*, 1849.

A BIT OF PRACTICAL FARMING.

P. T. Barnum, of Museum notoriety, has a country seat at Bridgeport, Conn. He has given some attention to farming and gardening, of late, and was elected President of the Fairfield Co. Agricultural Society. We give his experience in farming in his own words:

Selling Potatoes.—"In the fall of 1848," said he, "my head gardener reported that I had 80 bushels of potatoes to spare. So, of course, I directed them sold. They brought 67 cents a bushel. But, like most all small farmers, he sold the largest, and left us nothing but 'small potatoes' to eat at home. But the worst is to come. In March, we had not even a dish of *small* potatoes. So we bought more than we sold, and paid $1,25 a bushel at that! My experience, therefore, is, that a farmer had better ascertain first how much he wants for his own consumption, before he sends his produce to a cheap market."

Trimming Fruit Trees by an Amateur.—Another of Mr. Barnum's experiments was in the horticultural line, and was related by him with such inimical good humor, that his large audience was nearly convulsed with laughter. "Having been elected President of the Fairfield County Agricultural Society," continued he, "I felt the importance of my having a little *practical* experience as a farmer. Having reed a little about pruning, and watched my gardener awhile, I armed myself with a keen carving knife and set to work on my own hook. My first essay was upon a lot of young cherry trees. Half an hour, and my sharp knife gave them quite a symmetrical appearance, and removed all redundant limbs and sap-absorbing sprouts and suckers; and I prided myself somewhat upon this first effort as a pruner, and, of course, expected suitable commendation from my gardener for the labor I had saved him. Judge my astonishment, then, as he approached with a rueful countenance, and expression of 'Well, sir, you've done it now!' 'Why, yes, I fancy I have. How do you like my work?' said I. 'Like it! *Why, sir, you have cut off all the grafts!!*' This was a sad blow to my farming aspirations. But as I never despair, I shall continue to go ahead with improvements, but shall be a little cautious how I use the pruning knife, until I learn to know a sprout from a graft.

"I hope the relation of my *experience as a farmer* won't deter many others from seeking the same employment; for if they are capable of using the pruning knife at all, I think they are capable of learning to distinguish, perhaps, at less cost than I did, the useful from the useless, and if they did not, perhaps a little sprouting, *a la mode* our young days, might help to improve their education."

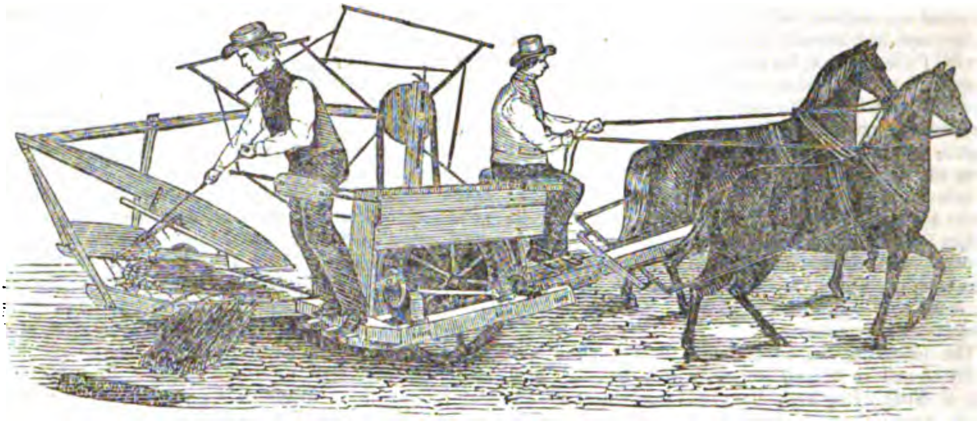
* * *

Human Progress.—Every individual, community and nation, must be interested in the moral, political and physical progress of humanity. It is a stock concern, in which we all have some share. We have not, however, the slightest intention of giving our readers on this Thanksgiving morning a moral essay on the law of human progress; but by way of adding a fact, not perhaps generally known, for which the lovers of long life and the blessings thereof may be thankful, we extract from an oration delivered by Cha's. Sumner, Esq., of Boston, before the Phi Beta Kappa Society of Union College, some time since, the following table, showing the diminution of mortality in several countries of Europe and in the largest cities thereof:

Deaths in England	in 1690, 1 in 83	in 1848, 1 in 47
" France	in 1775, 1 in 25½	in 1848, 1 in 42
" Germany	in 1788, 1 in 32	in 1848, 1 in 40
" Sweden	in 1760, 1 in 34	in 1848, 1 in 41
" Roman States	in 1767, 1 in 21½	in 1820, 1 in 28
" London	in 1690, 1 in 24	in 1844, 1 in 44
" Paris	in 1650, 1 in 25	in 1820, 1 in 32
" Berlin	in 1755, 1 in 28	in 1824, 1 in 34
" Vienna	in 1650, 1 in 20	in 1829, 1 in 26
" Rome	in 1770, 1 in 21	in 1828, 1 in 31
" Geneva	in 1560, 1 in 18	in 1821, 1 in 40

Although we have no statistics like the above in relation to our own country, it is to be inferred that we should compare favorably with any European nation, as we have not been behind any, but have rather led them, in all that tends to the advancement and progress of a great people — in all that elevates and ennobles humanity, and as a necessary consequence tends to lengthen out the period of man's brief sojourn here. A little more attention to the laws of health — laws written in the constitution of every man — will accomplish much in the physical department of human progress. Two-thirds of the sickness which afflicts mankind, in a thousand different forms, might be warded off by proper attention to vigorous and systematic exercise, more plain and simple diet, regular hours of recreation and sleep.—*Arg.*

We are glad to see so influential a paper as the Albany Argus calling public attention to the fact that, "two-thirds of the sickness which afflicts mankind" may be prevented. The importance of this truth can hardly be over-estimated. Evil habits, such as the excessive use of tobacco and other poisonous substances, fashions in matters of dress, wet feet, and exposure to miasmatic climates, bring thousands and millions of our race to premature graves. The time approaches when the laws of health will be both studied and obeyed as they deserve.



SEYMOUR & MORGAN'S IMPROVED REAPING MACHINE.

As our country improves and our population becomes more dense—as our forests disappear before the woodman's axe and the boundless prairies become covered with the golden grain—as our home consumption increases and the nations of Europe look to us for bread, Reaping Machines will become absolutely necessary to secure our crops, especially in the Great West. Hundreds of acres every season in that section, are either materially injured or entirely lost for want of the proper facilities for harvesting. A machine that can do this work well will be of the greatest public benefit, as it will not only enable the farmer to secure his grain, at just the right time, and also be a great saving of expense, but it will also enable him to do by horses, oxen, or even steam, that which has hitherto been done by a most severe description of manual labor, rendered doubly oppressive by the season of the year in which it must necessarily be performed.

Reaping Machines have been used in England, to some extent, since the commencement of the present century. The mildness and moisture of the climate, however, making the ripening process slow, and the harvest comparatively lengthy, and the cheapness of labor, obviates, to some extent, the necessity which exists in this country. In 1821 a Reaping Machine was invented by Jeremiah Bailey, of Chester County. We believe this machine answered the purpose tolerably well, and was used to some extent. A machine was invented and built in this city some ten or twelve years ago, by a Mr. Moore, that was designed to cut the grain and thresh it in the field. These machines have been improved, and are now manufactured and used at the West. The Reaping Machines most generally used of late years, is *McCormick's Virginia Reaper*, and *Hussey's Reaper*, both of which have been figured and described in previous volumes of this paper. Messrs. Seymour & Morgan, however, think their machine an improvement, and superior to either. We have not had an opportunity to witness it in operation, but those who have seen it work, pronounce it superior to any other in use; cutting from fifteen to twenty-five acres a day in the most perfect manner, even among wet and lodged wheat, never choking, though the grass be ever so abundant, and that it leaves the grain in a good condition for binding. We shall make it our business to see this machine at work, and shall then speak definitely of its merits; in the meantime we refer all interested to the advertisement of Messrs. Seymour & Morgan, and the certificates accompanying, in the present number.

CARE OF STOCK.

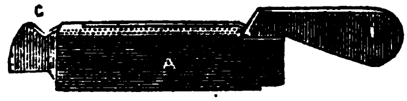
Editors of the Farmer:—In addition to warm stables or sheds for cattle, such as are tied at all, should be fastened securely by the neck or head.—Many a one has lost a valuable cow by injuries received by loose stears, oxen or other cows attacking them in a savage manner, when there was no possibility of escape. Horses too are frequently injured by kicks by getting loose in stables; or by standing too closely together.

Great care should be taken in fitting up stables to have the floor sound and strong; the manger and stantions in the right places; and the animals kept clean and dry by some proper bedding and the frequent removal of all droppings. Warm stables, well ventilated and cut feed will enable one to winter stock with the least expense, and in a thriving condition. Not only should their food be given to them regularly and in due quantity, but their water and salt should be offered with equal uniformity as to times and seasons. System and order are indispensable to the stock grower and dairyman. The best way to salt cattle in winter is to feed them brined straw corn fodder or hay twice a week. In this way a little salt can be kept constantly in the systems of domestic animals and greatly promote their health and improvement. Avoid driving or sending stock a great distance to water in winter. They are apt to suffer much from thirst; and to drink to excess when they do reach the spring, well or creek.

Green feed such as turneps, carrots, pumpkins, potatoes and the like, is extremely useful to mix with the dry forage of the farm in winter. There is room for great improvement in wintering and fattening sheep, swine and neat cattle. Much may be gained by providing suitable food the season previous, and having it well protected from frost. In addition to this, warm pens and comfortable stables are indispensable to economy in saving living flesh from waste, and making new on the carcasses of domestic animals. Ontario.

ARNOLD'S PATENT SASH LOCK.

"Sands make the mountain"—our lives are made up of trifles. Those matters which afflict us the most sorely, and give us the greatest inconvenience and trouble in passing through the world are generally but trifles. The flood may come and destroy the farmer's crops; but it is gone, and he repairs the injury—its effects upon both temper and fortune are soon forgotten. The dripping of the rain through a decayed or broken shingle, (which half an hour's labor might remedy,) causes more annoyance, more damage to the house and the temper of its inmates than the flood. A man may lose half his fortune, and bear it like a philosopher,—but what has philosophy to do with hammering one's fingers or breaking a light or two of glass in attempting to make a rusty nail support or fasten a window sash, or in having a favorite book spoiled in the same work.



The engraving given in this article represents a *Window Fastener*, invented by Wm. E. Arnold, of this city, which either fastens the window down, or secures it in any position. We take the following from the New-York Scientific American: "Of all the various kinds of fasteners now in use, some of which are exceedingly ingenious, we know of none which recommends itself more thoroughly by its simplicity than this. The Lock consists simply of a bolt of iron or brass B & C with a sheet iron box A, the latter being morticed into the sash, leaving but a small part of the bolt B, perhaps three-fourths of an inch, projecting, by which it is moved. About this lock or fastener, there is no complicated machinery, no spring or screws, and a bolt being moved by its weight, forms a complete lock for the window. When once in the window they will last until the material of which it is composed wears out. The great fault with many other fasteners, is their liability to get out of order. Not so with the one represented above, for the simple reason that there is no machinery to require fixing or springs to be renewed. Those who know any thing of the perplexity of a bad fastener, will appreciate any invention which promises an improvement."

The Lock is designed to be put square through the left hand style of the upper and lower sash, about half way of its thickness, leaving the handles of the bolt a little more than the eighth of an inch from the inside of the glass. To save the trouble of morticing entirely through, bore with a half-inch auger bit until the point pricks through, leaving about one-quarter of an inch to mortice, which should be of sufficient width and thickness to drive the Lock through from the inside and let the bolt work free. A suitable number of mortices should be made in the window frame to receive the end of the bolt. All but the upper ones and the lower one for the lower sash, should slant up about one and a quarter inches. The iron stops should all be driven square into the frame, except the lower one for the lower sash, which should correspond with the shape of the end of the bolt to hold it down. We think we can corroborate all that is said in the above extract in favor of this fastener. We know of hundreds in use in this city, and we believe they give in every case entire satisfaction.

Value of Annealed Wire for Fences.—In a conversation with Mr. Grant, of fanning-mill notoriety, he remarked that annealed wire never rusts. He stated that he bad now a wire screen to a cellar window, which has been very much exposed, on the north side of the house, for thirteen years, and until the chestnut frame is quite rotten, while the wire, although of No. 6, and never painted, is sound and good.—He remarks the same fact in regard to wire used for fanning mill seives. We also have some experience to the same point.

In putting up some wire around a poultry yard, to prevent the fowls from flying over the pickets, (which, by the by, were only 4½ feet high, with two wires above, and answered a good purpose,) we used bright wire. This rusted off, and failed entirely in one season. We then used annealed wire, which although much finer, is still sound and good, after three years' use.

Mr. Grant's opinion, corroborated by our own experience, is that annealed wire exposed to the atmosphere does not rust, at least not enough to destroy it, and that it is a better preventive than galvanizing, or any other process.

This important fact should be borne in mind by all who are intending to build wire fence.—*American Agriculturist.*

If wire can easily be preserved for an indefinite and very long time from all damage by rust, by simply annealing, it will soon come into general use as a fencing material. With read cedar, locust or stone posts, a fence might be made at once straight, beautiful, lasting and economical. In many sections, both rails and boards are scarce and high, and stone for walls not to be had. In such places, wire, perhaps with the aid of a ditch and bank of earth, may be resorted to with advantage. If one desires to combine ornament with utility, he can plant a row of trees 100 feet apart along the line where the fence is needed, attach the wire to them; having a few firm stakes between the trees to give strength to the fence, or the trees may stand nearer to each other. In most parts cedar grow well, and a few of their ever-green cone tops, interspersed with deciduous trees, will add much to the beauty of a fine farm. Even fruit trees might serve as supports to wires if desired.

* * *

Extraordinary Invention.—A Mr. Appold has invented a remarkable machine, called the "Centrifugal Pump," for draining marshes, &c., and a most ingenious affair it is.—You bave heard of the turbine—a small box water-wheel, possessing extraordinary capabilities for work. Well, Mr. Appold's model contains shch a wheel made of tin, a little thicker, but no larger than a half-penny. This is fitted at the bottom of a square tube dipping into a small cistern containing water, which may represent a lake, &c. The little wheel, being made to rotate with great velocity, throwing up water rapidly into the tubes above itself, until it overflows in a continuous stream at the top, and the volume of the stream is such as to deliver eight gallons per minute; and, on aplying a nozzle, the stream is driven to a distance of twenty feet. This, you will say, is a marvelous effect from so apparenetly insignificant a cause, but a wheel, about fifteen inches in diameter, exhibited at the same time, will delive 1,800 gallons per minute; it requires to be worked by an engine of four horse power. Mr. Appold has lately proposed to the Dutch Government to fix a similar wheel on the Haarlem Sea, now in progress of being drained by forty pumps, driven by steam.

A centrifugal pump of forty feet in diameter would do more work than all the others put together, and would deliver—so the inventer asserts—1,500,000 gallons per minute. With such power at command, one would think we ought never more to hear of ships foundering at sea; and the emptying and reclaiming of the Zuyder Zee resolves itself into a possibility.—*Foreign Journal.*

The above "extraordinary invention" is not so extraordinary as the writer supposes. If we had Commissioner Eubank's able work on Hydraulics at hand it would probably inform us about the time when the kind of wheel spoken of was invented and first used. We have seen them in use in Georgia and elsewhere with success, and did not regard them as showing any new principle or fact.

CULTIVATION OF THE SWEET POTATO IN N. Y.

The following remarks on the Cultivation of the Sweet Potato, is given in a letter from S. S. Ridder, of Maria Forge, Alabama, to B. P. Johnson, Secretary of the New York State Ag. Society, and published in the Transactions for 1848:

"I have been asked by some of the members of your Society, my opinion about the practicability of cultivating the sweet potato in this State, and the best mode of cultivating them. I have no doubt of your being able to raise sweet potatoes in this climate if properly managed, as I have known them grow to a very large size in Alabama in three months; and you have three months of quite as warm weather here, generally, as we have in Alabama, (viz.,) June, July, and August. I will give you a brief statement of my experience in cultivating the sweet potato. When I went to Alabama, six years ago, I knew nothing about the method that it was best to pursue, and had to depend on the experience and instruction of my neighbors. I pursued their plan until I found a better. The best mode that I have found is the following: First prepare a bed for laying down your seed potatoes to produce slips for planting, by digging up a bed, say three feet wide and ten feet in length, longer or shorter, according to the quantity of potatoes you have; throw the earth out of this bed to the depth of one foot, and fill in manure from the horse stable sufficient to make a good hot bed. It should be raised some ten or twelve inches above the surface of the ground, and the top of the bed should be sand and loam. Place your potatoes in rows about six inches apart across the bed, and cover them to the depth of two or three inches; the manure should be kept moist to create heat, to foward the growth of the slips as fast as possible. As soon as the slips are five or six inches high they are ready for planting.

Your ground for planting should be a light soil of sand and loam, where it can be had, but good clay will produce very good potatoes sometimes. The ground should be plowed very deep, and thrown up in ridges or hills, such as Irish potato hills after they have been hoed. The ground should be ridged or hilled immediately before planting, so as to be moist, as this is a very important matter to the growth of the slips when first planted. It is best to choose a time for planting when there is a little rain and cloudy weather, but they may be planted in dry weather if they are watered for two or three evenings, and do well. When you draw slips from the bed you should place your hand over the potato, to keep it from coming out of the ground, and take hold of the slips with the other, catching them as close to the potato as possible, and pull them off. You can pull all that have full sized leaves, and in eight or ten days your bed will yield another crop. Plant one slip in a place: if in ridges put them about eight inches apart.—When you get done planting throw the earth from each side of the ridge with a plow or hoe, that the sun may warm the middle of the ridge. As soon as your vines get fully rooted and are ready to commence running, throw the earth back, and after the vines begin to spread, hoe out all the weeds, and draw the earth up well around the vines, but be careful that there is no earth allowed to go on them, as they will take root wherever they are covered, and produce a bunch of small, stringy potatoes. I was told to cover a part of the vines, and after following the direction and the custom of the country one or two years, I abandoned it, and I soon found that I had a much better crop. Although I had not as many in number as when I had the vines loaded with little stringy potatoes, my potatoes in the hill were all large and fine, and the aggregate crop much larger."

ARSENIC FOR THE WIRE-WORM.

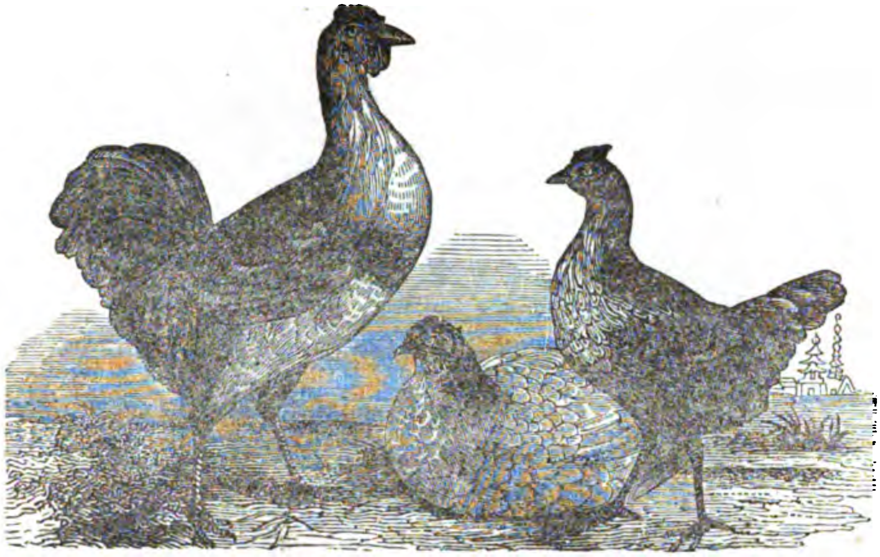
Messrs. Editors:—Arsenic, although a very dangerous article, I am inclined to believe, might be used in destroying the wire-worm, which is destructive to wheat. In reading an English paper, I observed a statement that certain game-keepers found numbers of pheasants and patridges dead, and to ascertain the cause, their stomachs were analyzed and found to contain arsenic. This they had procured from the seed wheat they had picked out of the land, which had been soaked in arsenic and water. Would not such a hint be useful to our farmers when they plant corn? I should strongly recommend it, and after planting is finished, sow broad-cast a peck. This would save the crows the trouble of scratching it up, which no farmer would object to.

Should any one be induced to mix arsenic with salt, which I believe would completely clear the land of wire-worms, grubs, and all other insects, the man who sows it should do so with gloves on, as he might suffer if he did not take this precaution. The finger-nails show the effects first. If it is mixed on the barn floor, it should be washed clean, for if horses or cattle should lick the floor it might prove fatal.—The gloves and all connected with this mixture it would be safest to burn. John Park.—*Gates, 12th month*, 1849.

Remarks.—Arsenic on land would undoubtedly prove destructive to both birds and insects. But we fear frightful accidents from carelessness would follow its general use. We are not surprised that English farmers should use arsenic, and we opine they feel no regret at the death of the patridges and pheasants. We have seen large fields of wheat two-thirds destroyed by the game. They are the curse of the farmers in many parts.

Guano.—Does guano afford a permanent improvement to the soil, or does it act on the first crop, and then leave the land as poor, or poorer, than it was before? This is a question so often asked, we will once more answer, that this is like all other *stimulants*, whether applied to man or the soil, unless furnished with some other food, the effect will not be permanent. But give the land a small coat of marl, manure, or green crops, for the guano to work upon, and then it will be found that the effect will be not only beneficial to the first crop, but several succeeding ones. None but the genuine Peruvian guano can be depended upon. "Manufactured guano," in many cases, is nearly worthless. The Maryland Farmers, the past year, have tried various experiments in planting potatoes with guano, and find that when it is put on *top* of the hill or drill, and slightly covered with earth the yield is much greater than when placed at the *bottom* of the hill

A remarkable specimen of Indian corn is to be seen in Baltimore. The stalks are about eleven feet in height, and on the four exhibited there are 18 ears, large and well filled.



COCHIN-CHINA FOWLS.

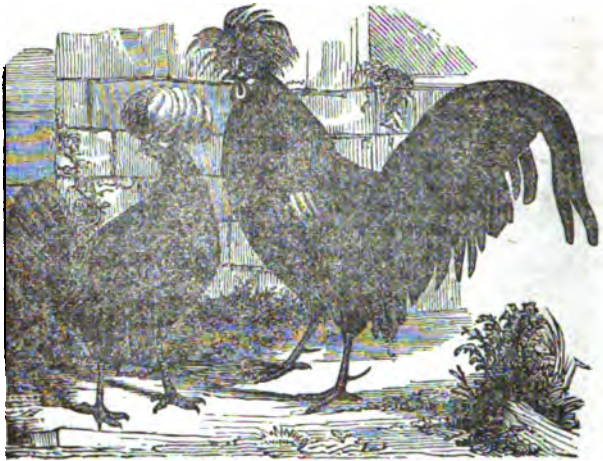
DOMESTIC FOWLS.

Few realize the importance of the Domestic Fowl. The poultry business has generally been considered too insignificant to claim the attention of the farmer, and hence this department has usually been consigned to the care of the younger members of the family. Yet no domestic animal pays a better profit on its care and keep than the dunghill fowl, when its keep and care are what they should be. The improvement of this species of birds is beginning to excite considerable interest, particularly in the vicinity of Boston, where new notions and "*Fowl Conventions*" are hatched with the shortest possible incubation. The late Convention at that place of the Fowl-Breeders of Boston and vicinity, has brought out some facts showing the importance of the business. The sales in Boston for the year 1848 was over a million of dollars. The proceeds of the sales of eggs for the same year was little short of a million of dollars. The value of poultry in the State of New York in 1840, as shown by the agricultural statistics, was *two million three hundred and seventy-three thousand and twenty-nine dollars!* which was more than the value of the swine, and nearly five times the value of its horses and mules.

The Boston papers represent this Convention as being one of the most interesting that ever assembled in Massachusetts. In the collection, which was very large, we notice the *Cochin-China*, *Poland*, *Dorkings*, *Bantams*, *Java*, and *Gold* and *Silver Pheasants*. The *Cochin-Chinas*, figured at the head of this article, were the most coveted, and prices were given for pairs of this description ranging from $9 to $18.

We copy the following description of this breed from **Bement**'s book, taken originally from a London paper: "These extraordinary birds are of gigantic size, and in their proportions very nearly allied to the family of bustards, to which, in all probability, they are proximately related—in fact, they have alread acquired the name of 'Ostrich Fowl.' In general color they are of rich glossy brown; tail black, and in the breast a horse-shoe marking black; the comb double. Two characters appear to be peculiar to them—one, the arrangement of the feathers on the back of the cock's neck, which are *turned upwards;* and the other, the form of the wing, which is jointed to fold together, so that, on occasion, the bird may double up its posterior half and bring it forward between the anterior half and body. The eggs are of a deep mahogany color, and of a delicious flavor. These birds are very healthy, quite attached to home, and in every respect suitable to the English climate."

The *Poland Fowls* have always been favorites of ours. Their shining black color contrasted with their clean white crest give them a beautiful appearance. They lay more eggs than any other variety, and are the least inclined to set. They have not improperly been termed "*everlasting layers.*" We always found it necessary to keep other hens to hatch their eggs. The following is **Bement**'s description:—"The Poland Fowls, as they are generally called, were, according to English authors, said to be imported from Holland. Their color is a shining black, with a white top-knot of feathers on the heads of both cock and hen. The head is flat and surmounted by a fleshy protuberance, out of which springs the crown of feathers or top-knot, white or black, with the fleshy King David's crown, consisting of four or five spikes. They are not so thickly covered with feathers as some other breeds, and still less so with down. The true breed is rather above the middling size; their form is plump and deep, and the legs of the best sorts are not too long, and most have five claws. The top-knot of upright, white feathers, covers so much of the head as almost to blind the eyes; indeed some require clipping, or they would become an easy prey to the hawks. The contrast of this perfectly white crest with the black plumage, is truly beautiful; but the top-knot of the cock differs from his hen, hers being broad and erect feathers, while his are narrow and hanging down in every di-



BLACK POLAND TOP-KNOT FOWL.

rection, but they must be perfectly white and the rest of the plumage perfectly black; broken colors, it is said by some, show a cross breed." J. H. STANLEY, of Le Roy, in this State, we understand, has a fine lot of this breed.

Dr. BENNETT, of Plymouth, Mass., remarks in the Boston Cultivator: "The eggs of some breeds are twice as valuable as those of others — for instance, one egg of the pure Cochin China Fowl, of the Baylies' importation, contains nearly as much nutritious matter as two eggs of the Black Poland or Golden Pheasant Fowl, and is, consequently, much richer, better flavored and more valuable."

That great difference exists in the nutriment of eggs, is a fact well known; but that this results less from breeds than the way in which fowls are kept, admits of hardly a doubt. As a cow cannot elaborate rich milk from a slop made of sawdust and water, so a hen is incapable of making a highly nutritious egg from clean buckwheat bran alone. The silliest of all ideas is that which assumes, that a bird can lay any quantity of good eggs without a full supply of organized nitrogen, sulpur and phosphorus in its daily food, as well as of all the other ingredients demanded by nature to form a perfect chicken in the shell. Supply abundantly, the proper material to make a genuine and healthy bird in the aliment of the parents, and rich eggs and plenty of them, may reasonably be expected. There is much point in the following remarks of Dr. Bennett: "Chickens should be fed on worms or meat-food if you desire to keep them healthy, and have them grow rapidly; and the food of fowls in general should be greatly varied, especially if they are not suffered to run at large, which, however, should always be done when practicable. The quality of the *soil* makes a great difference in the *size* of fowls. Rich ground, as it contains more worms and a greater variety of such other articles as fowls feed upon than poor land, is, consequently, much better adapted to their nature, and produce much larger fowls under similar circumstances."

Some time since we were at breakfast at the table of a gentleman at his residence in the poor piny woods of Georgia, where lime, sulphur, phosphorus, and organized nitrogen did not abound for the production of any eggs larger than those of small yellow ants. Hen's eggs brought on the table had the thinnest possible shells, containing the poorest possible albumen and yolk. A pig which had lived four weeks and been systematically starved before killing, could not be more dejune and innocent of all fatness.

A short lecture on the domestic maunfacture of eggs and the proper keep of fowls, soon doubled the supply of this article of food. in that family. All poultry about the premises now have a plenty of pounded oyster shells, sulphur-water, ash-heaps to wallow in and keep off vermin, and animal food of some kind. In addition to the latter, cooked peas and oats, or the same fed raw, are given to the birds to be transformed into the finest flesh of the duck, turkey, or chicken. Nothing is more simple and direct in its natural progress than the vegetable and animal transition by which even night soil may be converted into fat turkeys, or eggs worth from ten to fifteen cents a pound.

CANADA THISTLES.

DEAR SIR: — The Canada thistle made its appearance among us a few years since, and has increased so fast that some of us are becoming alarmed about it. Having learned that it is very common with you, a neighbor of mine, and subscriber to your paper, requests me to apply to you, through the columns of your paper, for the best mode of destroying it, or different modes if there are more than one good one. I have seen it in many different parts of the country, and am inclined to the opinion that it was introduced into our country by sheep brought from the north. Would not a large quantity of lime put on it, destroy the vitality of the plant and roots? Yours, &c., JOHN LEHMAN. — *Hempfield, Lan. Co., Pa., Nov.*, 1849.

REMARKS.—Salt is altogether better than lime to destroy Canada thistles, or any other obnoxious plants. Frequent mowing, so that no seed whatever is permitted to mature, is all important to prevent this variety of thistles from spreading. Deep and frequent plowing has proved successful in many instances. Any one who has had experience in subduing Canada thistles, will oblige us by giving an account of the process for the benefit of the public.

Horticultural Department.

EDITED BY P. BARRY.

JANUARY.

In our climate January weather seldom admits of the performance of any considerable out-door work; but those who keep an eye to the future will find many things pertaining to the garden and orchard, that can very well be done under any condition of the weather. How often do we hear people apologise for the defective management of their gardens by saying, I "had no time to attend to this or that."—Their garden crops, fruit trees, &c., in their feeble and stunted growth, show a great deficiency in their supply of nutriment; but there was no manure prepared at leisure times, and when the hurry came there was enough to do of greater necessity. Here are trees and plants blown about by the wind, going zig-zag to destruction; but there are no stakes at hand, and "there is no time to attend to it." Implements and fences are out of repair, and no time to put them in order. Now, the coldest of our winter months is just the time to think and act upon these matters. These are things that people need not be told; but we find by experience that a hint of this kind in season is of great value.

Whoever wishes to have a fruitful and flourishing garden and orchard, must attend well to the preparation of manures and composts. You might as well attempt to fatten an ox on rye straw as to grow fine fruits, flowers, or vegetables, without a regular and abundant supply of suitable manures. How many orchards are there all over the country that might be doubled, and even quadrupled in value, by a dressing of manure; and if it be prepared at leisure times, its application will be an easy matter. Our purpose, at present, is not to speak of the kind or quality of manure. We have often heard it said that "everything but stones will make manure;" and there is much truth in it. It would be difficult to tell what material there is *not* in our compost heaps. For special purposes it may be necessary to observe some rules; but for general purposes of cultivation, all decomposable materials may be worked up into a fertilizing compound for trees and plants. Whatever may be said by chemists about the loss that manure undergoes by fermentation, we know by actual experience that it is unsafe to apply unfermented animal manure to living growing plants. For the garden and orchard it should be well decomposed, so that when applied it might be cut with a spade. The materials should all be collected and mixed, and frequently turned over during winter. If it is a year old before using it will be all the better. The farmer should have a separate heap for his garden and orchard.

Then, besides the manure heap, they are many articles that will be wanted in spring and summer. *Hot-beds*, for instance, for forwarding early vegetables; *frames* for the protection of tender or half-hardy plants; *stakes* for trees, dahlias, and other herbaceous plants; *trellises* and other designs for the support of climbing plants; *rustic baskets*, *labels*, *&c.*—all these may be made now, when nothing can be done out of doors. Then there are seeds to be cleaned and prepared, fruits to be taken care of, &c.

For reading and reflection, the great means of acquiring that taste and skill upon which all Horticultural progress depends, the winter affords glorious opportunities that every one should improve to the utmost. No branch of science or industrial pursuit requires so much reading — so much study — as that of Horticulture. There is at this time an excellent spirit abroad in relation to Horticulture. Its claims upon the attention of all classes of community are now very generally acknowledged, and the chief obstacle to its progress and successful practice, is the *want of knowledge.* Farm culture, defective though it be, is yet greatly superior as a general thing, to that of the garden. The arts of *grafting*, *budding*, *layering*, *inarching*, and other means of propagating trees and plants, that every man who has a garden should be familiar with, are understood by very few. The seasons and modes of sowing, gathering and saving seeds, planting, transplanting, and pruning, are all badly understood, and hardly understood at all by a large number of persons whose lives are devoted to cultivation. So it is with the preparation of manures, and the texture and improvement of soils.

Ignorance on these subjects would be excusable if there were no accessible remedy. But such is not the case. Books — and good books — treating fully on all these points, are cheap and abundant; and we take this occasion to suggest to those who wish to make their fruit and vegetable gardens and orchards profitable and creditable,—to embellish their homes with trees, shrubs, and flowers, as all homes should be, in this country particularly, to spend a portion of the leisure winter days and nights in culling from the current publications of the times such information as they may feel themselves in need of, in order that it may be carried into actual and profitable practice during the coming season of cultivation.

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Address delivered before the Norfolk Ag. Society, on the occasion of its first Annual Exhibition at Dedham, Mass., September 6, 1849. By Hon. Marshall P. Wilder, of Boston, President of the Society.

The unusual early period at which the publishers find it necessary to issue the present number, leaves room at this moment merely to thank the author for his kindness in sending us a copy of this address. It is an elegantly printed pamphlet of 36 pages. The subject of Agricultural and Horticultural improvement are discussed with an ablilty and elegance of style rarely met with in such productions. The dignity and importance of agriculture—the application of science to farming—the importance and quality of manures—the arts of cultivation—and agricultural education are treated in a masterly manner. The author makes a general survey of our country, east and west—its wants and capabilities—and goes for New England against the world.

THE MAGNOLIAS.

AMONG the vast number of families of noble and beautiful trees with which nature has so bountifully clothed this continent, the Magnolia holds a prominent rank and deserves particular attention. In an ornamental point of view, we are inclined to place them among the first.

BROWN, in his "Trees of America," says truly that "the genus Magnolia embraces the most admirable productions of the vegetable world." LOUDON, in his Arboretum, describes eight American species and three from China and Japan:

1. GRANDIFLORA, or large flowered;
2. GLAUCA, or glaucous leaved;
3. TRIPETELA, or three petalled, or umbrella;
4. MACROPHYLLA, or long leaved;
5. ACUMINATA, or pointed leaved;
6. CORDATA, or heart leaved;
7. AURICULATA, or auricled leaved;
8. PYRAMIDATA, or pyramidal headed;
9. CONSPICUA, (YULAN, of the Chinese,) or conspicuous flowered;
10. PURPUREA, or purple flowered, (Japan;)
11. PURPUREA GRACILIS, or slender growing, purple flowered, (Japan;) besides many varieties and sub varieties of each, that European cultivators have produced by hybridization.

The Magnolias and our magnificent Rhododendrons, or "Mountain Laurel," are among the rarest and most highly prized ornaments of the parks and pleasure grounds of Europe. No pains or expense is spared to give them the soil, situation, and culture that will induce them to flourish, while here, at home, they are scarcely to be seen. How rare it is to see a fine specimen of a Magnolia! and yet it seems to us that every man who can plant half a dozen trees, should desire at least one. Next to the evergreen trees, such as the firs and cedars, we have a particular love for the Magnolia; and we hope to see the time when our country people, who are now planting the Horse Chestnut, Mountain Ash, Maple, &c., by sixes, twelves, twenties, and even hundreds, will remember that nature has kindly given them others, with which to give variety and beauty to their home scenery. There are at the present moment a vast number of trees planted around and in our cities and villages, and through the whole country; and if the selection of trees were made with more taste and judgment, how much greater would be the improvement! how much more interesting these little plantations in the streets and door-yards would be, not only to their possessors, but the public at large! If a man but plants trees of any sort, we are loth to find fault with him; but we must take this occasion to suggest to those who may be about to plant, to introduce a variety. The man who has a little town lot, and can plant only half a dozen to a dozen forest trees on the side walk opposite his house, should not plant all *Soft Maples*, or all *Buttonwoods*, or all *Horse Chestnuts*, or all of any other tree, because his neighbor may have done so. That little plantation is all that he and his family can enjoy daily of "nature's most beautiful production;" and why not make it as varied as possible? If we go to the woods for trees, why not get an *Elm*, a *Tulip tree*, a *Sugar Maple* and a *Soft Maple*, a *Linden* or *Basswood*, and a *Chestnut*, instead of half a dozen Maples or Buttonwoods. They may not be quite so easily obtained or transplanted, but only a trifling additionl expense will be incurred.

It is not in man's nature to be delighted with a monotonous uniformity. A neighbor of ours has, on very small plantation, some sixty different sorts of forest trees. Another neighbor, who has recently built himself a large, costly, and commodious house, finished in the most complete and convenient manner outside, and intending to have a comfortable and beautiful home, sent a teamster to the woods and pulled up a number of shabby looking maples to plant on the side-walk before his door. The contrast is insufferable — annoying to the most common observers that pass along. And this was not economy ; for most likely half of these maples will die and will have to be replaced, and those that happen to live will not in years give either ornament or shade ; but it was not meant to be economy—for the man is of a liberal nature, and particularly so as regards things that pertain to his dwelling, — it was simply *a want of taste*. What a misfortune that people of taste are so apt to be poor and the wealthy so void of taste! But we have not space to dwell more at length on this subject now, and have only touched upon it incidentally ; our purpose was to draw attention to the beautiful tribe of Magnolias — not to describe a long list of species and varieties, but a few of the more desirable sorts, adapted to our climate and easily obtained. These are, the Acuminata, Glanca, Tripetela, Macrophylla, Conspicua, Purpurea, and Soulangiana.

These are all sufficiently hardy to stand the winter here (43°) without protection. The *Acuminata*, or Cucumber tree, which is found scattered over all the western portion of this State and in most of the Western States, is well known to every one who is at all acquainted with forest trees. It abounds on all wooded land on the banks of the Genesee. The finest specimens we have ever seen are on the timbered lands of Gen. Brooks, in Canadea, Allegany county. Many are to be found there full eighty feet high and four feet and upwards in diameter, with clear branchless trunks till within a few feet of the top. What imposing objects they are! When grown singly on the lawn the branches are thrown out with great regularity, forming beautiful pyramidal trees. On young trees, and even those of large size if in a vigorous state on a suitable soil, the foliage is large, eight to ten inches long and half that in diameter. The flowers, which appear in May, are of a pale bluish color, three to four inches in diameter, and slightly odorous. Propagated from seeds that ripen.

Glauca. This abounds particularly in New Jersey, in moist and swampy ground, and is commonly known as the *Swamp Laurel*. It is a low branching tree, seldom exceeding fifteen to twenty feet in height : the leaves are five or six inches long, of a bright bluish green, and remain fresh until a very late period in the fall. The flowers, which appear in May and June, are white, odorous, and about three inches in diameter. When in flower, this is a beautiful tree. Propagated from seed.

Tripetela, or Umbrella Tree. This is a magnificent tree, abounding principally in Carolina and Georgia. It attains the height of 30 to 40 feet with immense foliage, 18 inches long, and 7 or 8 broad, and white, sweet scented flowers 7 or 8 inches in diameter, propagated from seed.

Macrophylla, or Large Leaved Magnolia. The immense foliage of this tree gives it quite a tropical appearance. In habit it resembles the Tripetela. It seldom exceeds 20 to 30 feet in height. There was once a fine little grove of these in the old Linnæan Nursery at Flushing, (now in the possession of Messrs. Winter & Co.,) planted by the late Wm. Prince, who did more in his day than any man in America to disseminate this beautiful genus. At one time his nursery contained nearly every species and variety that were to be obtained. This tree is found scattered sparcely over nearly all the Southern States. Its large foliage, grayish bark, and gray silky or velvetty buds distinguish it from all the others.— Flowers in June, 8 to 10 inches in diameter and quite fragrant. This species has always been scarce and dear in all the nurseries of both this country and Europe. If more attention be given to collecting seeds it might soon be easily enough obtained.

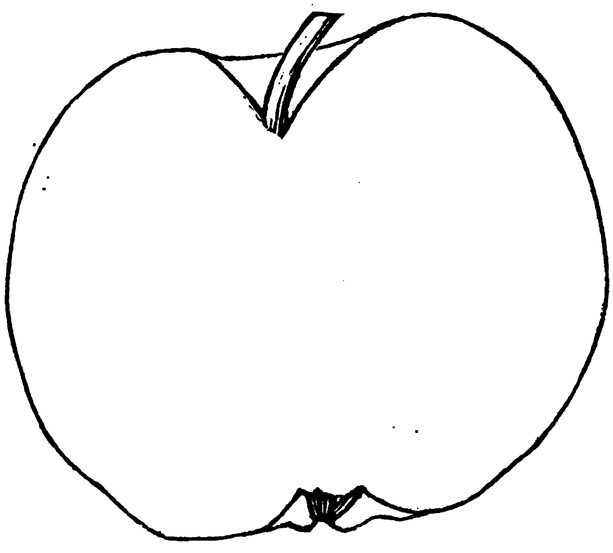
Conspicua, or Conspicuous Flowering (*Yulan* of the Chinese.) This is a native of China, and held there in the highest rank as an ornamental tree. In this country it ranks as a small tree or large shrub, but nothing can be more beautiful. Its flowers are pure white and appear in May, before the leaves, in the greatest profusion, even on young specimens. There are a few fine examples in this country, one of the finest is on the lawn of A. J. Downing, Esq., at Newburgh, a notice of which he has given in the Horticulturist. The habit of the tree is regular and pyramidal; leaves 5 to 6 inches long and 3 to 4 broad. Loudon mentions one at Wormleybury, England, that in 1835 produced 5000 blossoms. It is usually propagated by inarching on the acuminata or purpurea—on the latter its growth is much dwarfed.

Purpurea, or Purple Flowering. This a small tree or large shrub, seldom attaining, here, 6 feet. It has large, dark green foliage, and purple flowers, which appear, like those of the Conspicua, before the leaves. It is more easily multiplied than most of the others, as it is increased by layers. There is always a good supply of it in the nurseries.

Soulangiana, or Soulange's Conspicuous Flowering Magnolia. This is a variety of the Canspicua or a hybrid between the Conspicua and Purpurea, raised at Fromont, near Paris, by the late M. Loulange Bodin. It resembles the Conspicua in all respects, but differs in having purple flowers.

We have not spoken of the *Grandiflora*, which is certainly the most superb Evergreen tree on this continent, or in the world, but requires protection in all the Northern States, and is consequently unsuited to general planting as an ornamental tree. Gentlemen who keep a gardener and can afford to give special attention to tender trees, should by all means enrich their grounds with at least one specimen. It is easily protected in winter by placing a box or board shed over it.

The Chrysanthemum in China.—The Chrysanthemum is the Chinese gardener's favorite flower. There is no other with which he takes so much pains, or which he cultivates so well. His Camelias, Azaleas, and Roses, are well grown and well bloomed, but with all these we beat him in England; in the cultivation of the Chrysanthemum, however, he stands unrivalled. The plants themselves, seem, as it were, to meet him half way and grow just as he pleases; sometimes I met with them trained in the form of animals, such as horses and deer, and at other times they were made to resemble the pagodas, so common in the country. They are always in high health, and never fail to bloom most profusely in the autumn and winter.—*Gard. Chron.*



THE NORTHERN SWEETING APPLE.

Two years ago we saw this beautiful and delicious sweet apple, for the first time, exhibited at the Pomological Congress in New York, by Jonathan Batty, a respectable nurseryman of Keesville, N. Y. After tasting, we at once noted it as the *best sweet* apple we had yet seen at that season of the year, (October.) Others who then saw it, and who were fully competent to judge correctly, thought as highly of it as we did.

After our return from New York we were presented with specimens of the "Munson Sweeting" from a friend in Cortland Co., and it struck us at once as being identical with the "Northern Golden Sweet" of Mr. Batty. This season we again saw it in New York, from Mr. Batty; and our friend Mr. Jesse Storrs of Marathon, Cortland Co., sent us a small box of his "Munson Sweeting," which has confirmed our opinion as to their identity.

Mr. Batty says it originated in the orchard of Nathan Lockwood, of St. George, Chittenden Co., Vermont, planted by his father more than sixty years ago. Mr. Storrs says it was brought into Cortland Co. from Massachusetts, and is probably known there as "Munson Sweeting." At the last session of the Pomological Congress, it was brought before the fruit committee, of which Dr. Brinkle of Philadelphia was chairman, and Messrs. Chas. Downing, C. M. Hovey, and Robt. Manning, were members. The committee were much pleased with it, and suggested naming it "Northern Sweeting," leaving out Golden, as there is already an old and well known "Golden Sweeting."

This class of apples. called *sweet*, is much more sought for now than formerly, both for kitchen and table uses. There is scarcely a family now but seeks a small supply of sweet apples for cooking, and many persons prefer them, if good, for eating. We have several varieties of sweet apples here, many of them as large as small pumpkins and but little more palatable — their chief use is for feeding cattle. The *Pound Sweet* is of tolerable quality, bakes well, and makes good sauce. It is just now in season, and people are glad to get them at a dollar per bushel; but neither this nor any other that we know of in use now, cultivated here, can properly be called a *dessert* sweet apple. The *Bailey Sweet* is excellent, but its season is after the one we now notice. A fine sweet apple, fit for dessert or cooking in October and November, is therefore a great acquisition, notwithstanding the vast number of varieties now in cultivation. Such is the "Northern Sweeting." In the New England States it will undoubtedly succeed well, as also in New York and the Middle and Western States generally. Lovers of sweet apples will no doubt test it as soon as possible.

Size medium; form roundish, slightly angular or ribbed; stalk moderately stout, two-thirds of an inch long, in a pretty deep cavity. Calyx closed, segments long, in a pretty deep and slightly plaited cavity; skin smooth and fair, of clear yellow, becoming golden at maturity, with a red cheek; flesh yellowish, fine grained and tender, abounding with a rich, agreeable, saccharine juice; tree a vigorous grower and good bearer; season, October and November, and may be kept, we believe, through a considerable part of the winter.

* * *

THE CANANDAIGUA PEAR.

Catharine, erroneously, of Western New York.

Some seven or eight years ago, this pear was brought to our notice by Henry Fellows, Esq.,* of Penfield, who has for a long time brought it to the Rochester market. At first sight, one would suppose it to be the Bartlett, but it is essentially different in many particulars of both tree and fruit. Mr. Fellows has fine old bearing trees, planted in 1812, being now between 30 and 40 years old. He informed us that he obtained his trees or grafts from the late Judge Atwater of Canandaigua, who brought it there from Connecticut about the year 1806, or previous to that time. Until within a few years, this fine pear seems to have attracted very little attention here; but this is not at all remarkable, since it is but a short time since the White Doyenne (Virgalieu) was unmarketable, and left to the hogs or to rot under the tree; now they are hard to be obtained at $3 to $5 per bushel.

Up to this time this pear has been called by Mr. Fellows and others the "Catharine;" but this is evidently a misnomer, as there is an old and well known variety of that name. For this reason, and because it was said to be originally from Connecticut, we refrained from noticing it, expecting that it might be found cultivated in some other place under another name; but so far we have found no trace of it elsewhere. Recently it was exhibited at the Pomological Convention among seedling fruits from the neighborhood of Geneva, we believe, and the fruit committee to whom it was referred were much pleased with it, and suggested that it be called the "Canandaigua" pear, it being traced no farther than that place, and all the trees in Western New York having been obtained from that vicinity.

The history of this fruit is the same as that of the

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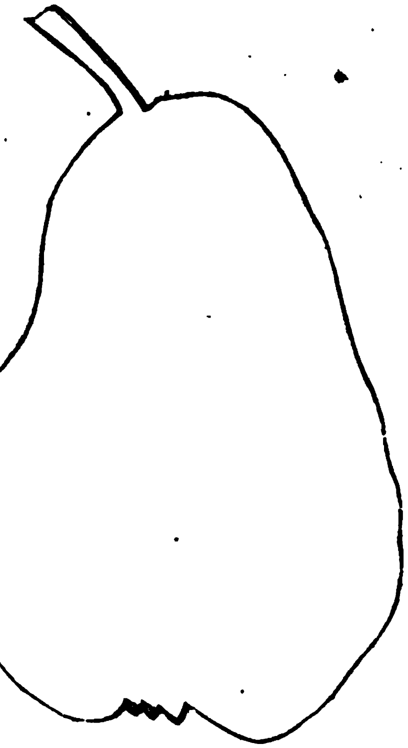
* We shall obtain from Mr. Fellows some facts in his own experience with the culture of this pear. He and his sons are proprietors of a nursery at Penfield, in this county.

"Swan's Orange" or Onondaga, and is quite singular — both are traced to Connecticut, and yet neither of them are now to be found there. It may possibly be that both were seedling varieties that never had more than a local existence in Connecticut, and have entirely disappeared there now, and are perpetuated only by a single graft being brought into this country by early settlers from the immediate neighborhood of the parent trees. The *Canandaigua* is so much like the Bartlett, that if its history were not nearly as ancient, we should suppose it to be a seedling from it. As the matter stands, this is hardly possible.



CANANDAIGUA PEAR.

In size it is usually medium, sometimes large, pyriform, slightly irregular, surface rather uneven; skin fair and smooth, of a pale yellow; stalk about three-fourths of an inch long, usually inserted somewhat obliquely; calyx open, very slightly sunk; flesh white, fine grained, buttery and melting; ripening from first to the middle of September; the tree is a vigorous and beautiful grower, both on pear and quince stock, and a good bearer every year.

Domestic Pine Apples.—The National Intelligencer states, that on Saturday, in the Washington Centre Market, Mr. Howlett, of that city, gardener and florist, exhibited a number of pine apples of his own raising, from the crowns of the foreign fruit, which were thrown into the street, and picked up there about a year ago.

"In time of peace prepare for war," is an old maxim, and has done mischief — in winter prepare for summer, is a new maxim for the horticulturist, and will do good.

THE FALL PIPPIN.

Mr. Editor:—It is not my design to engage in any pomological controversy. But I do not like to see the *old* "Fall Pippin" thrust out of any orchard to make room for any other apple; it is an old favorite of mine, one with which I have been intimately acquainted for more than forty years. I have spent many an hour in rambling among a number of large trees in "Old Dutchess," selecting the best apples I could find, such (as an old miser said with his money) as would do your eyes good to gaze upon. But I know of only two trees in western New-York that bear the same kind of apples, though there is a multitude of apples, in almost every orchard in every place that I am acquainted with that are called *Fall Pippins*, quite distinct from the Fall Pippin; yet I think good judges might take selected specimens of them at a certain state of maturity to be the true Fall Pippin.

The true Fall Pippin is generally larger, more yellow, more tender, less acid, not quite as long in proportion to its size, but not as good to keep. I think it would be far more difficult to keep them till the 1st of January than one of the so called Fall Pippins till the middle of February. Mr. Downing has a good description of the Fall Pippin in his work on fruits.

I intend to visit those two trees this winter, though some 14 miles from this place, to cut some Grafts from them and will send you a few, if you wish.

Where can I find some Sea Kale seed, and Pansy seed from choice varieties? Stephen Hale.—*Clyde, Nov.* 24, 1849.

Our correspondent will find no one, we think, who will dispute with him the merits of the *Fall Pippin*. In our opinion it has no superior if an equal of its season. The kind referred to is that known through this section as *Holland Pippin*, (but not the Holland Pippin of Mr. Downing,) a magnificent oblong apple, same texture and quality as the *Fall Pippin*. It keeps till March, and answers the description of the *White Spanish Reinette*, described by Mr. Downing and several European works. The tree in its growth &c., is a *fac simile* of the Fall Pippin.

Sea Kale seeds are usually found at the seed stores. Pansy seed of a choice variety is very difficult to obtain in this country.

ANSWER TO CORRESPONDETS.

Will you please name the best 25 sorts of Market Apples to be planted *solely for profit*, composed of 6 *Summer*, 4 *Fall*, and 10 *Winter* varieties?

Will you also state what varieties of Pears are *most* and which *least* liable to blight with you? F. K. Phœnix, *Delavan, Wisconsin.*

Remarks.— For profitable orchard culture in this region, we would choose,

Summer.—Early Harvest, Red Astrachan, Early Strawberry, American Summer, Sweet Bough, and Golden Sweeting.

Fall.—Gravenstein, St. Lawrence, Fall Pippin, and Jersey Sweeting.

Winter.—Rhode Island Greening, Yellow Bellflower, Baldwin, Esopus Spitzenburg, Roxbury Russet, Golden Russet, Pomme Gris, Northern Spy, Bailey Sweet, and Talman Sweet.

The selections above are made with a view to *profitable culture*, taking into consideration the vigor and productiveness of the tree, size, appearance, and keeping qualities of the fruit. Our own observations incline us to believe that no one variety of Pear is more liable to the blight than another.

Ladies' Department.

We had designed to talk on various matters in this department; but we think the space is occupied to good advantage as it is. In our next, and subsequent numbers, we shall present thoughts and facts, important to the health, comfort and happiness of our fair readers. In this department we shall also have the assistance of several female writers, whose ability can but add interest and value to our paper.

SALLY SLY AND JENNY McKEAN'S BUTTER.

Joe's wife was Sally Sly—when a small girl she was sly—she would not half wash the milk pail and sly it away and let it sour. She was sly at school and did not half get her lessons, but would have her book in sight when reciting; but as she grew older she learned that to get well married she must appear well, and so she bent all her cunning to get a superficial education in every thing, from roasting a potato to playing a piano. Poor Joe fell in love with her, and "love has no eyes"—so he married her. But soon after she entered on housekeeping, his eyesight came, and he saw his fix that it was "for better or for worse;" and he thought it was all for worse.—Like a true philosopher, he concluded to endure what he could not avoid nor cure, and got along tolerably well only when he came to her butter—for his mother was a real butter-maker. Every time he saw or tasted of Sally's butter he felt the horrors. Her manner of making butter was something as follows: she thinks it of no consequence whether the milk pail is sweet or sour—sets the milk in a warm room, because it is easier than to go in the cellar, and if some dirt should blow into the pans she thinks every man must "eat a peck of dirt," and no place will it slip down easier than in butter—she lets the cream pots be open, and when she churns forgets the poke; leaves the cream nearly at blood heat that it may come quick. When she takes it out of the churn she picks out the bodies of all flies and spiders—the legs and wings are so small they can be swallowed. She works out half the buttermilk and sets it away in a warm place for use. Poor Joe has seen so much butter of this kind that he declares butter does not agree with his health, and will not taste it. Yet his wife wonders why he does not try it, and marvels why he does not keep a dairy, and make butter for market.

Jonathan was a young brother of Joe, and he had occasion to eat at his brother's enough to know why he could not eat butter: and he declared he never would marry without knowing what his bread would be buttered with. Following the bent of his fancy, he made several attempts at matrimony, and Julia Juniper almost caught him, for there was always good butter on the table at tea, but he was determined to know who made it. On inquiry, she says, "La me! mother makes the butter: I take lessons on the piano." "Well," says Jonathan, "I want a wife that takes lessons on the churn—I shall look further." After several unsuccessful attempts, and just ready to despair, he started in pursuit of stray cattle, before breakfast, and wandered across the forest into the corner of the next town, and weary and hungry called at a decent looking house and asked for some refreshments, which was most cordially granted, for the family were what were called Scotch-Irish—in religion, Presbyterian, and in hospitality boundless. Here he found the butter exactly right—though the weather was hot, the butter kept its shape as well as beeswax. He catechised the old lady about her housewifery—for the bread was as right as the butter. The old lady said her health was feeble—she could do but little, and Jenny had the whole management. He made some round-about inquiries concerning Jenny, and learned she was a hearty, black-eyed lass, of about two and twenty; had never seen a piano nor attended a ball—but knew the Assembly's catechism; could sing Old Hundred to a charm—spin flax and darn stockings, and was then gone to town with butter. He lingered, but she was delayed, and when his excuses for staying were all exhausted he started. He could not get the good butter out of his mind, and how it happened I know not, he soon found his way there again, and the result of his adventure was he made a wife of Jenny McKean. And now one lump of his butter is worth more than all Joe's would make in a month. There's no trouble in going to market—the keepers of genteel boarding houses in the neighboring village send and take it at the highest market price.

Now the main difference in these two women arises from the manner of training, though there is no difference in natural disposition. Old Madam Sly never looked on to see that Sally done up her work right, but suffered her to sly off her work as she chose, and though a good housekeeper herself, was altogether too indulgent, and like some other mothers, thought more of getting Sally well married than of making her fit for a wife—while old madam McKean was determined Jenny should be fit for any man a wife, whether she got married or not. Perhaps there is no more certain criterion by which to judge of a woman's general character for neatness and good house-keeping than by the quality of her butter. Find on the farmer's table a good, solid, properly salted, well worked slice of butter, and you need not fear to eat the pan-cakes or hash; but if you see a splash of half-worked butter—salt in lumps and a sprinkling of hair and flies' legs, you may be sure, if you board there long, death will not be obliged to wait for you to finish your peck of dirt.

"HOUSE AND HOME"

What's a House? You may buy it, or build it, or rent;
It may be a mansion, a cottage, a tent;
Its furniture costly, or humble and mean;
High walls may surround it, or meadows of green.

Tall servants in livery stand in the hall,
Or but one little maiden may wait on you all;
The tables may groan with rich viands and rare,
Or potatoes and bread be its costliest fare.

The inmates may glitter in purple and gold,
Or the raiment be homely and tattered and old;
'Tis a house, and no more, which vile money may buy;
It may ring with a laugh, or but echo a sigh.

But a Home must be warmed with the embers of love;
Which none from its hearthstone may ever remove;
And be lighten'd at eve with a heat-kindled smile.
Which a breast, though in sorrow, of woe may beguile.

A home must be "Home," for no words can express it,—
Unless you have known it, you never can guess it;
'Tis in vain to describe what it means to a heart
Which can live out its life on the bubbles of art.

It may be a palace, it may be a cot,
It matters not which, and it matters not what;
'Tis a dwelling perfumed with the incense of love.
From which to its owner 'tis death remove.

Youths' Department.

Few of the youth in the country, we fear, appreciate or improve the advantages they enjoy — particularly those afforded by the long winter evenings. The youth in our cities, at most trades, have to labor as long, and longer, in the winter than at any other season. The evenings are not their own, but their employer's. In the country the winter is a season of leisure. The farmer's son and daughter employ the evenings as best suit their inclination. What an opportunity this affords for mental improvement — a rare chance to gain that knowledge which shall prepare them for respectability and usefulness in the world. A young man, by the assistance of such books as all can procure, in three or four winters can lay up a stock of knowledge that shall prepare him to act well his part as a farmer and citizen — a knowledge that will give him an influence over less intelligent neighbors, and if rightly used will advance the best interest of the country, and the good of all.

It is for every young man and every young woman to decide whether this golden opportunity shall be improved — these evenings well spent; or, whether they shall be wasted, or worse than wasted in idleness and frivolity. We would not detract from your pleasures — far from it; the pleasures of knowledge surpass any pleasure afforded by the too common amusement of the young. The fields of science afford solid pleasure — they furnish new sources of delight at every onward movement — they are strewn with flowers at every step. The pleasure of science is, perhaps, the only earthly exception to the words of the poet, that,

> "Each pleasure hath its poison, too."

In the pages of the Farmer we can only hope to arrest the attention of the youth, and then bid them go on, furnishing them facilities, as far as possible, to help them search for knowledge — ever holding up the encouragement that industry and perseverance in a right cause ensures success.

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Hints.—When I see a man hanging around the store, shop or taven, or loitering about home, because he has nothing to do, I am apt to think he likes company better than work, and is unwilling to work for what he can earn, that he promises to work for more persons at a time than would be best, and that he could find those in his neighborhood who would be glad to hire him to work, in order to obtain their just demands. I am apt to think, too, that he owes for some pig, bushel of corn, a few pounds of pork, house rent, or some other necessary, which on quarter-day will look rather squally. But I am apt also to think, if he becomes punctual in paying these little debts, faithful in his business, not extortionary in his wages, punctual in all his promises, and rendering himself useful to his employers to the best of his abilities, that he would be apt to find his business on the increase, wages improving, *less sauntering*, a firm demand for his labor, an increase in his pocket, a sweeter nap at night, a pleasanter wife, and withal — and what is best of all — a clear conscience.—*Boston Cultivator.*

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Love of Fame.—The love of fame not regulated by principle, is more dangerous to the welfare of society than the love of money.

COUNTRY GIRLS.

Mrs. Swisshelm, of the *Pittsburgh Visitor*, has written some very fine things. We extract the following from her *Letters to Country Girls*:—

"Well, girls, I know that, let others do as they will, you have to work, for if you do not, you would not be worthy the name of country girls. The drawling concerns who lounge round reading novels, lisping about the fashions and gentility, thumping some poor hired piano until it groans again, and putting on airs to catch husbands, while their mothers are toiling and boiling in the kitchen are not often met in the country. This class of girls are generally confined to cities; and you would be surprised to know how many of them are here. There are hundreds of girls in every large city who parade the streets in feathers, flowers, silks and laces, whose hands are soft and white as uselessness can make them, whose mothers keep boarders to get a living for their idle daughters. These mothers will cook, sweep, wait on table, carry loads of marketing, do the most menial drudgery, toil late and early, with very little more clothing than would be allowed to a Southern slave, while their hopeful daughters spend their mornings lounging in bed, reading some silly book, taking lessons in music and French, fixing finery, and the like. The evenings are devoted to dressing, displaying their charms and accomplishments to the the best advantage, for the wonderment and admiration of knights of the yardstick, and young aspirants for professional honors—doctors without patients, lawyers without clients—who are as brainless and soulless as themselves. After awhile the piano-pounding simpleton captivates a tape-measuring, law-expounding, or pill-making simpleton. The two ninnies spend every cent that can be raised by hook or by crook—get all that can be got on credit, in broadcloth, satin, flowers, lace, carriage, attendance, &c., hang their empty pockets on somebody's chair, lay their empty heads on somebody's pillow, and commence their empty life with no other prospect than living at somebody's expense—with no other purpose than living genteelly and spiting their neighbors.—This is a synopsis of the lives of thousands of street and ballroom belles, perhaps some of whose shining costumes you have envied from a passing glance. Thousands of women in cities dress elegantly on the streets, who have not a sufficiency of wholesome food, a comfortable bed, or fire enough to warm their rooms."

* * *

Early Rising.—Are you poor? you will probably forever remain so, if you habitually waste the precious hours of the morning in bed. Who will seek the labor or services of him who sleeps and dozes in the morning until seven or eight o'clock? If such a person is poor, he must remain poor. "He that would thrive must rise at five." The poor can ill afford to lose daily two or three hours of the best portion of the day. Economy of time and dilligence in business, are virtues peculiarly appropriate to those who depend upon their earnings for the means of subsistence. Allowing twelve working hours to a day, he who by rising at eight instead of five o'clock in the morning, thereby loses three hours labor daily, parts with one fourth of his means of supporting himself and family: ten year's labor lost in the course of forty years!—*Boston Cultivator.*

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The idea about the want of time is a mere phantom.

Spirit of the Agricultural Press.

Fattening Animals.—A memoir was read to the Academy of Sciences at Paris, by M. M. Dumas, Boussingault and Payan, "Of researches on the fattening of animals, and on the formation of milk." These philosophers announce their belief that fatty matters are formed in plants alone; that they thence pass, ready formed, into the bodies of herbiviri, entering the chyle duct by the lacteals, and so passing into the blood; that the first degree of oxidation forms stearine or oleac acid; a further degree produces the margaric acid which characterizes fat; a still further degree the volatile fatty acids — in opposition to Liebig, who traces the origin of fat to the sugar or starch of the food. In confirmation of their views, they show that hay contains more per cent. of oleaginous matter than is produced in the butter from a cow fed on this hay; and that cows fed on potatoes, or other roots poor in fat, produce much less butter. They advance an influence, which bears much on rural economy, that a cow eliminates twice as much fat from a given quantity of food as does an ox; and hence the commerce of milk and butter deserves a high degree of attention. Some relative experiments on fattening pigs bear out the same general principles.—*Pol. Review.*

Subsoil Plowing.—Ex-Governor Hill states in the *Visitor*, that he has found great benefit from subsoil plowing on the "driest plains" near Concord, N. H. He states that in a field of potatoes on these plains, the past season, he found the length of the potato vines "sure index of the depth of the plowing." Wherever the ground was cheated of the subsoil plow, upon a balk, or in the field, the vines were as much shorter, as the soil was stirred a less depth." He gives the result of an experiment in subsoiling made several years since. The ground was plowed with a surface plow, eight inches deep, and a subsoil plow run in each furrow eight inches deep. He left two strips, a yard wide, not subsoiled. He had taken six crops from the field—three of grass, one of oats, one of corn—and the inferiority of each crop on the portions not subsoiled was apparent, and could be seen at the distance of forty to fifty rods. The subsoiled part gave from two to three tons of hay to the acre.

Starch from Indian Corn.—The Ohio Statesman informs us that large quantities of starch are made from this grain in that State. An establishment near Columbus is said to use 20,000 bushels of corn annually for this purpose. No attention is now paid to the color of the corn, as by the improved modes of manufacturing, as light-colored starch is produced from the dark-colored varieties, as from white.—The quality of the starch here made is said to be superior, commanding a higher price in New-York and New-Orleans than that made from wheat. The offal of the grain is fed to hogs, and at the manufactory alluded to, 500 to 600 head are annually fattened.

Potato Disease not caused by Insects—Mr. Curtis, a distinguished English entomologist, has just published a volume in reference to insects which attack the potato.—Speaking of the malady which has prevailed so extensively in potatoes for several years, he remarks—"Amongst the numerous causes which have been assigned for the appearance of this alarming and severe visitation, insects have been frequently taxed as the destrutive agents; but I am convinced the calamity is not to be attributed to their presence." He admits that there are many species of insects which prey upon the potato in its various stages; but he thinks there is no evidence that their attacks are in any way connected with what is called the potato disease.—*Albany Cultivator.*

Houses of Unburnt Bricks.—Houses of unburnt bricks may be made perfectly wind and water proof by being covered externally with a thin coat of mastic, which is prepared by mixing very coarse, sharp sand, or sifted road drift, with dry White Lead and Lithargee, beaten up with Linseed oil, and rendered sufficiently soft to work well with a trowel. This plastering becomes in a short time, so hard as to resist a nail, and will stand for an age without cracking or needing repair. For inside plastering, sharp sand and lime mortar is sufficient; papering the walls when dry.—*Boston Cultivator.*

This is a Great Country.—A correspondent of the New York Times states that, according to the report of the Commissioner of the General Land Office, that part of the United States territory not yet formed into States, will make *forty-six* States as large as Pennsylvania; each of which will contain *twenty-eight millions of acres.*

Hessian Fly and Good Wheat.—J. Oglesby, in the Pennsylvania Cultivator, states that he had a nine acre lot, from which he obtained 60 bushels of oats, the rest of the crop being briars, sumac, sassafras, Canada thistles, poke, elder, and nearly all other kinds of weeds. When the oats were harvested, the bushes were grubbed, and the weeds cut with a scythe. When perfectly dry, they were burned in a strong wind, as they lay over the ground. The nine acres then received 700 bushels of lime—the land was well plowed—and the next year it yielded 390 bushels of good wheat, untouched by the Hessian Fly, the fire having destroyed them.

Ventilating Bricks.—The London Builder says there has been registered in the Patent Office a brick so shaped that when two are placed end to end a circular space is left at the junction. This circular space connecting from course to course, a wall formed with them is, to a certain extent, hollow, and admits of currents of air through it either heated or otherwise. Each brick is nine inches square and three inches thick, the size of two common bricks.

We saw, the other day, some nice, large, healthy looking potatoes, which were grown in the center of a heap, of hard coal ashes. The height of the heap, to say nothing of the soil, if such it could be called, seemed most unfavorable to production of any kind, yet we have seldom seen finer potatoes raised under the most favorable circumstances. It may be thought that the value of coal ashes in agriculture is yet to be understood.—*Cambridge Chronicle.*

Cellars for Manure.—The claimants for the premiums on farms, offered by the Middlesex (Mas.) Agricultural Society, generally speak highly of the advantages of keeping manure in cellars. R. Chaffin states that he considers one load of manure composted in the cellar under his barn, worth three which have been exposed to the action of frost, rain, evaporation, &c. His cellar is closed, excluding the frost and rain altogether. His cows are kept in the barn, nights, all the year; their manure goes into the cellar where hogs are kept to root over the different materials, and mix them into a compost.—*Albany Cultivator.*

A New Machine.—A model of a machine called *The Bran Duster*, was exhibited at the Fairs held in this city in October, of which we had the opportunity of witnessing the operation, and which we deem worthy the attention of millers. This machine will, in every 100 barrels of flour, make 4 bbls. more which escapes with the bran, by the usual modes of grinding. The saving is thus easily calculated, and will be found an item of no inconsiderable amount. The machines sell for $300 to $400, and no doubt will soon be adopted by every miller. We understand that they are about being placed in some of the mills near this city, It can be seen in operation at the Turning establishment of Mr. Stowe, in Uhler's Alley.—*American Farmer.*

Flax Culture.—Mr. J. Galbraith, of Wisconsin, has undertaken to introduce the cultivation of flax into that State. He has been about two years in Wisconsin, and is well versed in the methods followed in Ireland, Holland and Belgium. His first trial was made at Musquinago, with 50 acres, and this year he has harvested the products of 100 acres. The fabric is stated to be quite equal to that of Irish and Belgian flax.—*Farmer & Mechanic.*

Important Discovery.—A surgeon of Gottingen has discovered a complete antidote to arsenic. It is peroxyde, or the red oxyde of iron, twelve parts of which neutralize one of oxyde of arsenic. Experiments with this antidote have been tried upon rabbits and other animals with complete success. One advantage of it is that no injury can be done by too large a dose. In cases where too large quantities of arsenic have been taken, it has been found useful first to encourage vomiting.

Provisions from America.—During the last twelve months there were imported into Liverpool alone from the United States, 26,000 tierces beef, 37,000 barrels pork, 224,000 cwts. bacon, 15,000 hams, 50,000 barrels lard, 100,000 boxes cheese, 8,600 firkins butter. The value of the above is £1,000,000 sterling.

Large Crop of Beets.—We have received a bushel of nice and large Blood Beets, as a specimen of the crop raised by Mr. Turner, of the Insane Hospital in this town. Mr. Turner raised this season one hundred and sixty bushels of these beets on fifty-six rods of land.—*Maine Farmer.*

Irish Settlement.—Rev. Mr. Dove, of Ireland, has bought 20,000 acres of land in Cattaraugus Co., N. Y., and gone home to bring the population to settle on it.

Editor's Table.

We think none of our subscribers will complain of either the contents or the appearance of this number, although we have not made it as good as we shall make the succeeding number. We hope our friends will make an earnest effort to increase our circulation in their respective neighborhoods. Show the paper to your brother farmers—form a club—collect the *three* shillings and forward with the names.

Scene at our Office.—An intelligent looking, and apparently "well off" farmer of this county entered our office, when the following dialogue occurred.

Farmer—I want the December number of your paper.

Editor—You will perceive that this is the last number of the present year—I suppose you will renew your subscription for the next year.

Farmer—I merely called to get Mr.——'s paper I don't take the Farmer myself.

Editor—Don't you think it would be to your advantage to take the Farmer, and read it.

Farmer—I think I can plow and raise wheat as well as my neighbors who read the Farmer and sometimes I think better than most of them.

Editor—Suppose I grant that you can raise wheat better than *any* of your neighbors—I suppose you have some plan—some good method for doing so not known to them. Now don't you consider it your duty as a good citizen and neighbor to make this successful plan known.

Farmer—I am always willing to give my neighbors the benefit of my experience—indeed I consider it a duty, and I flatter myself I have done not a little good in this way.

Editor—I am glad you ackowledge your duty in this respect. Now if it is your duty to give the few you daily come in contact with the benefit of your experience, and you can do good in this way, how much greater is the duty to throw the light of your experience before the *one hundred thousand* readers of the Farmer; and how much greater will be the amount of good you can do in this way.

Farmer—I never wrote a line for a paper in my life, but I believe I will take the paper any way.

Editor—You must write, too,—give us the facts, no matter how, and we will put them in shape.

Farmer—I beleive I'll'try.

Monroe County Ag. Society.—The annual meeting of the Monroe County Agricultural Society was held at the Court House in Rochester on the 11th of December. Premiums on field crops were awarded as follows: to Henry B. Moore, Brighton, first premium on corn; Ira Apthorp, Riga, second., L. B. Langworthy, Greece, first premium on carrots.

E. K. Hobbie, of Irondequoit, was elected President; N. Haywood, Brighton, 1st Vice President; F. P. Root, Sweden, 2d Vice President; John Row, Riga, 3d Vice President; Joseph Alleyn, Recording Secretary; James Vick, Jr., Cor. Secretary; and John Rapalje, Treasurer; Elisha Harmon, D. D. T. Moore, and John Rapalje, delegates to attend the annual meeting of the State Society at Albany.

An Agricultural Club has been formed in the town of Rush, in this county, of which Joseph Sibley is President. A club has also been in existence some time in the town of Webster. This is right. We think town clubs essential to the efficiency of County Societies. Our plan is for each County Society in which there are no town clubs, to take means to establish them in each town auxiliary to the County Society, making the President of each an *ex-officiö* member of the County Executive Committee. The interests of town and county Societies would thus become one, as their objects are one. We make this suggestion for the consideration of those who are endeavoring to form or sustain agricultural associations.

Our Office.—We shall be happy at all times to see our friends and subscribers at our office. We keep files of all the Agricultural and Horticultural publications of this country, and many European works. They are always ready for the inspection and perusal of our freinds. We hope those who can make it convenient will make us a call, as we are always "at home". We will give any information, and render any service in our power, in procuring seeds, implements &c., or in any way in which we can advance the cause in which we are engaged.

Engravings.—The beautiful engravings in our present number were most of them designed and all executed by Mr. E. Baldwin, of this city. His work will be a better recommendation than any we can give. He is prepared to execute drawing and engravings of implements, stock, &c.

Tea Culture.—The New York Tribune has late advices from the tea plantation of Mr. Junius Smith, at Greenville, S. C. His plants are in blossom, and as healthy and flourishing as those of China at the same stage of growth. Every thing looks favorable, and Mr. Smith feels abundantly encouraged. He expects to place fresh tea upon the tea-tables of London and Paris in 20 days from his plantation.

Mr. Smith is a sanguine man. We fear he will find that labor is too high in this country to compete with the Chineese any better in producing tea than in growing silk. If cotton was down to four cents a pound instead of selling at ten, as it now does, tea might be raised and put up in the old planting States. The freight on a pound of tea from China is not over one or two cents, at most; and its first cost is all in the cheapest kind of human labor.

We are indebted to the author for a neat pamphlet containing an address delivered before the Buck's County (Pa.,) Ag. Society, by J. S. Skinner, Editor of the "Plough, the Loom and the Anvil." We extract one of the best passages in the address.

"Much better would Congress be employed in erecting a monument to Washington, in the establishment of a bureau as recommended by him, to enlighten the government in respect of its agricultural rescources and interests, than in rearing perishable piles of stone and mortar, vain memorials, when built in honour of one whose fame already extends to the utmost verge of civilization, and will endure as long as the love of liberty shall remain unextinguished in the hearts of men.

"At a meeting of the London Horticultural Society, Nov. 6th, a paper was read from H. Dobree, Esq., of Beau Sigour Gurnsey. It stated that at the last Gurnsey fruit show, a Chaumontel Pear of perfect shape, and of the remarkable weight of 2 lbs. 4¼ oz. Engish welight, was exhibited by his neighbor, Mr. T. A. Corbin.

"Some years ago Mr. Dobree transmitted a Chaumontel Pear to the Society, of the weight of 1 lb. 13¼ oz. English weight, being the heaviest which had hitherto been produced in the Channel islands. The pear produced by Mr. Corbin, grew on a quince stock, and no artificial means were employed to increase the weight of the fruit, of which there was in addition a fair crop on the tree. The soil is a deep, strong, brown loam, which is occasionally manured."—*Gard. Chron., Nov.* 10.

The Chaumontel Pear of the Channel islands, Jersey and Guernsey, are famous all over Europe. Under ordinary cultivation a pound is not an unusual weight, but 2lbs. 4¼oz., is certainly extraordinary. Such an instance as this is useful as showing what results may be obtained with certain varieties, where stock soil and situation are all favorable. In this country the Chaumontel is an early winter fruit of the first quality.

Elihu Burritt, the Learned Blacksmith, and the able champion of Peace, has just returned to the United States from Europe. A public meeting was called for his reception in Worcester, Mass., of which the Mayor was chairman. On taking the chair he gave a brief address, from which we take the following beautiful paragraph:

"A few days since I stood by the monument which marks the spot where the first enemy fell in the war of the Revolution. As I stood by that monument the question occurred, when will monuments be erected to commemorate the victories of Peace? And as I looked around me and saw each hill-side covered with the fruits of civilization, each valley filled with flocks and herds, each village with the cultivators of the earth, and each city with its smiling inhabitants, I felt that my answer was received, and that the monuments of Peace were already erected."

Arnold's Patent Sash Lock,

THE BEST ARTICLE of the kind ever offered to the public. by several hundred per cent. It is extensively used—universally admired. and highly recommended wherever known. The Patentee received at the recent State Fair in Syracuse, the Diploma of the State Society, (which is the highest premium on such articles.) accompanied by the following commendatin from the Committee. "Arnold's Patent Sash Lock. an article of great simplicity and extreme cheapness of cost. and operating with unerring certainty. The Committee commend it to all who need the article. as the Ultimathule of Sash Lock inventions." The well known Chairman of the above Committee. Lyman B. Langworthy, Esq., very justly remarked that I had nothing to fear from any other Sash fastener—that the principle of this is the only one that is right. This was the almost universal opinion expressed at the Fair. I know of but one exception. and that was an individual deeply interested in another article for the same purpose. The Editor of the Rochester American was at the Fair, and in noticing in his paper the various articles exhibited, uses the following language:—

"Wm. E. Arnold exhibited his admirable Sash Lock, which for simplicity and utility has no equal or rival."

The Syracuse Star. as well as numerous other papers have expressed the same sentiment. The Ontario Repository. says:—"A large number of these Locks have been attached to windows in this village, (Canandaigua.) and we hear but one opinion expressed in relation to them, and that is of unqalified approval."

This being the prevailing sentiment wherever this Fastner is known, I might fill scores of newspapers with testimonials in its favor, but the article itself is its best recommendation. A Reward of One Hundred Dollars will be paid to any Person who will produce a patent window fastener on any other principle, in every respect as good. It is now less than one year since this article was fairly before the public in which time I have sold at my manufactory, without the aid of hired travling Agents, several thousand gross, the most of which have gone into use, and with a very few exceptions, and these where they were not properly applied, have given entire satisfaction.

I am now making them of various lengths, adapted to sash of different sizes, and a much better article than my first sample.

WM. E. ARNOLD, Patentee.
and sole Manufacturer, cor. of Main and
Alexander streets, Rochester.

P. S.—A Baltimore paper just received, announces that the above Sash Lock took the first premium at the recent State Fair in Maryland.

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NOTICES OF THE WORK.

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"We have seen enough to convince us that it is a work of rare merit, such an one as will meet with the approbation of all intelligent readers. Every agriculturist who reads and digests should procure the work."—*American Farmer, Baltimore.*

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Families in the country. and especially those living in new countries and unhealthy climates, should not fail to procure a copy and have it at all times at hand. in case of sickness as they might thereby by some simple remedy save an expensive and protracted doctors bill. Whether well or sick, such a book should be in every house as a safe and sure adviser in time of need, the directions given for persons in health cannot be too strictly attended to by all.

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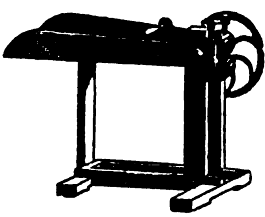

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It is now generally conceded that for cutting hay, straw and stalks., these Machines having knives set upon the circumference of a cylinder, and cutting against a roller of raw hide, are the best yet introduced—the work is easily and rapidly performed by simply turning a crank, and the machine is a perfect self-feeder without any extra and complicated fixture to perform that part of the work.

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THE subscribers are preparing to offer to the Farmers a superior REAPING MACHINE. Having for years been engaged in manufacturing a large number of McCormick's *Reapers*, they are confident that the Reaper which they are now manufacturing is far superior in every respect to any other now in use. It was thoroughly tested in the harvest field last year and gave entire satisfaction to all who witnessed its operation. It surpasses any machine now before the public in many important points;—the *Cutter* or Sickle being in sections, in case of accident can be repaired by a good Blacksmith, without the owner being obliged to go to the manufacturers for a new blade The ground wheel is 3 ft in diameter, and all the geering runs in iron boxes. An early order is important from those wishing to purchase a machine, as we have already contracted for the sale of [illegible]0 for the West. In all cases a liberal warrant is given to the purchaser.

The improved Reaper was constructed under the supervision of our Foreman Mr. GEO. F BURNET, who has been engaged three years for us in the business. SEYMOUR & MORGAN.

Brockport, December 25, 1849.

CERTIFICATES.

SWEDEN, Nov. 12, 1849.

Messrs. Seymour, Morgan & Co.—In my harvest, last season, I used one of your Improved Grain Reapers. I had formerly used one of McCormick's Improved Virginia Reapers, I have had considerable knowledge of them. In comparison, I think yours decidedly preferable; firstly—in point of perfection in cutting, which is the great desideratum, it is far in advance of his, and next, in ease of operation, I think it has decided advantage. I did not obtain your Reaper until a large part of my harvest was completed; consequently I had not an opportunity to test the amount that could be cut in a day, still I am satisfied that it is capable of cutting from fifteen to twenty-five acres per day, and that, too, in the most perfect manner. I used no change of team. I did not find it necessary in doing an ordinary day's work—about fifteen acres per day. I tested your machine in wet grain and when there was grass at the bottom; here I found it had a great advantage over other Reapers in use, it being able to go through almost any grain, some badly lodged, without any apparent difficulty of clogging the knife. And from my experience I think it a valuable labor-saving-machine, and would cheerfully recommend it to the attention of farmers, as I think grain can be cut with it, all expenses counted, at half the cost of cutting it the ordinary way.—Wheat can be bound and shocked in a better manner, and with less labor, besides a great saving in the waste of grain.

Yours &c. F. P. ROOT.

I saw the aforesaid, Seymour & Morgan's Improved Reaper, in F. P. Root's harvest field and do concur in the foregoing statement.

WM. ROOT, Esq.
D. H. ROOT.

I have seen the Machine work in very heavy, and also in wet wheat where it performed well, and believe it to be an improvement upon McCormick's Reaper. There was no clogging, as in the case of McCormick's and it must be a good machine if well made.

NATHAN LOCKE.

BROCKPORT, Nov. 13, 1849.

Messrs. Seymour & Morgan:—Gents—I used one of our Improved Reapers in my harvest, which worked better than any I have seen before used—cutting wheat when there is much grass, without choking, which other machines that I have used would not do—I have had much experience with Reapers—having purchased the first one of McCormick's brought to this State. I have since put a large number of McCormick's in operation at the West, and I believe yours to be the most perfect Reaper now in use.

A. CHAPPELL.

I used one of Messrs. Seymour & Morgan's Reapers last harvest, and cheerfully recommend it to Farmers as the best machine within my knowledge for cutting grain. GEO. H. ALLEN.

BROCKPORT, Nov. 13, 1849.

This may certify that I used in my harvest of 1849, Seymour & Morgan's Improved Reaper, which worked to my entire satisfaction; cutting grain in all conditions. I believe it cannot be clogged in either grassy or green wheat. I have witnessed the operation of other Reapers now in common use and I believe it to be superior to any that I have seen—cutting wet or grassy wheat where other Reapers cannot. F. W. BREWSTER.

BROCKPORT, Nov. 12, 1849.

We have seen the trial of Seymour & Morgan's Improved Reaper in the harvest of F. W. Brewster—and having witnessed the operaton of other Reapers, we believe this the most perfect machine now in use.

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1st. A well selected Agricultural Library put up in a handsome case, (the books alone worth thirty dollars.) to the person that shall send in the largest number of subscribers, at the club prices, before the 15th day of April next, so that we may announce the successful competitors in the May Number.

2d. A well selected Library handsomely put up in a case, (the books alone worth twenty-five dollars,) to the person who shall send us the second highest list, as above.

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4th. To the one who procures the fourth highest, the Transactions of the New York State Agricultural Society, from 1843 to 1850 inclusive.

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6th. To the person obtaining the next (sixth) greatest number, five dollars, in Agricultural Books, on like conditions.

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☞ That all Post-Masters, Local Agents, and Subscribers, wherever the Farmer circulates, may have a fair and equal chance to obtain the Premiums, *traveling agents, post-riders, residents of Rochester and all city booksellers* are not included in our offer.

We shall keep a correct account of the subscribers sent by each person. In the March and April numbers of the Farmer we will publish a list giving the names of thirty or forty of the most successful competitors, so that each may know his prospect of success, and act accordingly. In the *May* number we shall announce the successful competitors.

Libraries and *Books* will be forwarded per order, immediately after the announcement of the successful competitors in the May number.

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VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, Jr., Editors.
P. BARRY, Conductor of Horticultural Department.

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DANIEL LEE.
December, 1849. *Rochester, New York.*

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THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—FEBRUARY, 1850. NO. 2.

THE PRINCIPLES OF AGRICULTURE.

How much wheat or cheese can a farmer take from an acre of common, fair land, every year, and not impair its fertility? Suppose that he extracts the elements of wheat or cheese from his farm to the average depth of 12 inches; what amount of these elements will each cubic foot of his soil contain? In short, how much wheat, or how much cheese is there in that quantity of fair, common earth, provided one separated the whole of the matter that can by any known system of tillage, grazing or feeding, form the products named?

The bare statement of the propositions in the above form, is sufficient to satisfy a close observer, that not one man in a thousand has ever studied the first principles of scientific agriculture. Nor will the *things* in the soil that make good grass and a plenty of it, good wheat and sound potatoes, and a plenty of both, ever be generally known to the farming community till the elements of agriculture, like the elements of arithmetic and grammar, be well studied in common schools and academies. School boys can readily be taught to understand the language of science; but business men have little taste for, or patience with, what appears as the meaningless jargon of an unknown tongue. Take the case which we now have in hand. Our wish is to impart to all readers who know nothing of the terms and principles of analytical chemistry, a clear idea of all the substances in a cubic foot of earth that can be transformed into wheat or cheese. But the moment we begin to talk about the amount of phosphate of lime, and ammonia, in 100 lbs of soil, and the quantity of wheat or cheese which they will supply with those indispensable elements, the uneducated in agricultural chemistry will fail to comprehend the force of the reasoning submitted to his understanding. It will be like giving a boy a sum in cube root who has yet to learn addition, subtraction and multiplication. Hoping this defect in popular education will one day be removed by the Free Schools in the State of New York, we will proceed with our inquiry as to the quantity of wheat which a cubic foot can make, before the raw material will be mainly consumed in the crop, or lost in producing it.

No American citizen is so stupid as to believe that a bushel of wheat can be organized in any place from *nothing*. It will take *something* to make the first seed of this grain; and that something must come from somewhere. We have before us, in English journals, well authenticated cases, in which 200 *cwt*. of Peruvian guano applied to an acre of wheat have added a quarter, or 8 imperial bushels to the crop. Here is a gain of over four pounds of wheat to one of fertilizer. A critical analysis of any ordinary soil, of wheat, and of guano or bird dung, will show that the manure named will yield to growing wheat plants those elements of its seed, which are least abundant, and soonest exhausted in tilled land. These facts are of great practical importance, for they warrant the conclusion that so far as the material for making wheat is lacking in the soil, although the particular atoms needed be exceedingly small in the plant, yet the crop will not grow beyond the supply of its peculiar constituents. A great many experiments have been tried to determine what atoms are most needed in ordinary wheat soils to organize this grain; and ammonia or nitrogen in the form named, or in that of nitric acid, has been found most useful; but phosphates and sulphates of lime, potash and magnesia and common salt (chloride of sodium) are only a little less beneficial. Guano contains all of these as well as ammonia.

A cubic foot of fair wheat soil also contains all the elements of wheat or bird dung; but in no large quantities. English and Scotch farmers now grow about twice as much wheat per acre as any other farmers in the civilized world; and they do this simply by feeding the growing plants with the things known to be consumed by nature in organizing the crop. Strange as it may sound to such as have not investigated this matter, skilful dairymen have ceased to expect a cow to give a large product in butter or cheese, which is not well fed on nutritious food full of the organized elements of milk. Nor do they expect a dung hill fowl to form a decent shell to an egg without lime, or the egg itself, without organized nitrogen, sulphur, phosphorus and the other elementary bodies found in a chicken when first hatched.

The practical advantages of these researches are numerous. They reduce agriculture and rural economy to *a science* which is governed in all its essential parts by uniform and enduring Natural Laws. The time will never come when a calf or pig can form its bones out of iron; or when a kernel of corn will be organized from any other atoms than such as God first appointed, and fitted for the purpose. Hence, nothing is more variable than the quantity of corn, wheat and potatoes which can grow on an acre of land. Crops of this kind can never be made with the greatest economy of labor and material, till the composition of these crops be familiar to the farmer;

and he knows which elements are least abundant in his soil and in the atmosphere, and least available for use.

Stable manure kept under shelter, gypsum, salt, bones, ashes, and above all, the fertilizers that may be had from the vaults of privies in cities and villages, are rich in the elements of bread, meat, potatoes and cheese. If 100. lbs of dry *poudrette* will give 300 lbs. of wheat, why refuse to use this inodorous substance? Instead of planting five acres to raise 100 bushels of corn, why not try to grow that quantity on two acres or on one and a half?

Recollect that to waste the liquid excretions of a domestic animal, is to throw away half the value of its food, according to the experience of the best Belgian farmers. It is quite impossible to produce cheap food for cattle, horses, sheep and swine, without contriving to have cheap food for cultivated plants. A horse can live on nothing, or on pure flint sand, quite as long as a common vegetable. Make the economical improvement of land a particular study. It will repay you ten fold for the time so spent, in preventing the unskilful application of farm labor, and the unwise expenditure of money. Draining and liming are far from being as generally practiced as will prove advantageous to the soil.

GYPSUM—ITS ELEMENTS AND VALUE.

Eds. Gen. Farmer:—In the last Genesee Farmer I was pleased to see a brief notice, in a part of your late Address on Tillage, of the importance of gypsum to the farmer. Having been a subscriber for some time, I have long hoped to see in your paper a full analysis and description of this article. I am annually selling to cultivators of the soil, large quantities of Manlius Plaster, and I should esteem it a favor if you would turn your attention to this subject in your next.

1.—What are its elements as a fertilizer?

2.—Is its beneficial action upon the vegetable effected by absorption of mineral fertilizers from the earth, or from atmospheric gases, or both?

3.—Is its annual application to the same meadow, pasture or grain, prejudicial to the soil in the way of exhaustion?

Your answers, accompanied with such additional remarks as my questions may naturally excite, will not only much oblige a subscriber, but will doubtless be highly acceptable to a large portion of your numerous patrons. P. J. W.—*Fort Plain, N. Y., Jan'y,* 1850.

Answer to the above.—Our correspondent and all others are welcome to copy into any paper whatever appears in this journal, only not omitting, as too many do, to give the Genesee Farmer credit for its contributions to the agricultural literature and science of the United States.

Question 1st.—"What are the elements of gypsum as a fertilizer?"

Answer.—*Sulphur* and *lime.* As dug from the earth, 100 pounds of this mineral usually contains some 21 lbs. of water, which can be driven off by burning at a red heat just as the much larger per cent. of water in alum may be expelled when placed on a hot shovel, in making burnt alum. Burned gypsum consists of 41½ parts of lime combined chemically with 58½ parts of oil of vitriol, or sulphuric acid. In 40 parts of the oil of vitriol there are 16 of sulphur and 24 of oxygen. Omitting small fractions, there are in 100 pounds of ground gypsum the following ingredients:

Lime,	33 lbs.
Oil of Vitriol,	46 "
Water,	21 "
Total,	100

In the oil of vitriol there are not far from 18½ lbs. of sulphur.

Question 2d.—"Is its beneficial action upon vegetables effected by absorption of mineral fertilizers from the earth; or from atmospheric gasses, or both?"

Answer.—A bushel or one or two hundred pounds of this salt of lime spread pretty evenly over an acre, will soon be dissolved in rain or snow water, and can not essentially, if at all, increase the natural capacity of water to absorb common air or any fertilizing gases it may contain from the rotting of vegetables and animals on the surface of the earth. Gypsum does not, therefore in the opinion of the writer, contribute to the growth of plants from the fertilizers which it draws *directly* from the air, or from the soil. Being sufficiently soluble in water for all useful purposes, it enters directly into the roots of clover and other plants, and supplies their tissues with available sulphur and lime, from the lack of one or both of which the crop is diminished both in quantity and profit. In most soils it is available sulphur, more than available lime which is wanting; and ground plaster supplies this want. In 100 pounds of wool or hair there are five pounds of pure sulphur; which can only come from the grass, hay, and other food of sheep, cattle, and other domestic animals. The flesh and nerves of all animals, from man to the worm, contain sulphur. This comes from their aliment, which is derived primarily, from plants and the soil. When gypsum has enabled young clover, corn, peas, beans, and other plants to extend their roots in all directions, these extended roots imbibe food of every kind, including sulphur salts as well as phosphates, salts of ammonia, &c., which, without the aid of the gypsum, the comparatively few stunted roots had never reached, nor imbibed. The same law of vegetable development which enables the roots to descend deeper into the earth, and to extend themselves laterally, is equally operative in developing more and larger leaves above ground for the discharge of vapor and gases into the air; and probably, for imbibing aliment through the same organs. In this way, 15 or 20 grains of sulphate of lime spread over a cubic foot of earth, will enable little clover seeds, or the genus of the pea or bean plant to extract from that earth, more sulphur than the gypsum contained, and more of all else needed to form the plants named, both from the soil and the atmosphere.

Gypsum is not a "stimulant," for no plant has *nerves* or *muscles,* which can be *stimulated.* It is a simple, plain, every-day food, and nothing more. In all well drained, well-tilled land, sulphur salts need to be often added; because of their solubility and deficiency in quantity, in the soil. Form a stagnant swamp, or permit nature to do the same, and it will soon abound in the sulphate of iron, (copperas) in the sulphate of alumina and potash, (alum) in the sulphate of soda and magnesia, (epsom and glauber salts) and in the sulphate of lime, (gypsum.) Drain your swamp well, and away runs all your copperas, alum, glauber and epsom salts, and gypsum. Farmers must learn to feed their cultivated plants as they do their hogs, sheep, cattle and horses—just what they need to meet the wants of nature, and *no more to be wasted.*

QUESTION 3d.—"Is the annual application of gypsum to the same meadow, pasture or grain, prejudicial to the soil, in the way of exhaustion?"

ANSWER.—It is not. If, however, the farmer is so unwise as to restore nothing in payment for the grass eaten by domestic animals, which per chance, daily go out of the pasture with full stomachs at night, and return with empty ones in the morning, as dairy cows often do; and he makes no restitution for the hay, grain and potatoes removed, then, of course, his land will grow poor, and poorer, and perhaps a little faster, by harvesting large, instead of small crops. Nevertheless, we seriously question the fact, whether a large crop impairs fertility more than a small one. On this point we have several highly interesting experiments in progress. If any reader sees, or thinks he sees, a material defect in our theory in reference to the beneficial operations of plaster, he will confer a favor by pointing it out.

TO DESTROY CANADA THISTLES.

MESSRS. EDITORS:—In your number for January, I see a letter requesting information relative to some practical mode of meeting the inroads of the Canada Thistle. This wide spread, noxious weed, is indeed alarming, though not necessarily so, except to the careless or inattentive cultivator, unless in stony and wet localities, unfit for, and preventing the free use of the plow. It cannot have escaped the notice of many of your readers, and probably you have once and again published the fact, that good wheat lands can be completely reclaimed from the dominion of the most inveterate growth of thistles by the simple process of a *free* and *timely* use of the plow. I am aware that many may say they have tried this remedy and found it to fail. To this remark I have only to say, that when *thoroughly* and *fairly* tried I never knew it to fail of so far succeeding as to leave scarce a thistle high enough at harvest to come within cut of the cradle; and that too, on fields completely covered with them before fallowing. This, however, applies particularly to old lands, where stumps, stones, &c., have been removed so as to present no obstacle to stirring the whole soil. But the desirable object of preventing the unsightly appearance in many harvest fields of rods, quarters, and half-acres of thistles left standing, or, cut only to open a passage to the laborers, can not be effected by the mere process of "breaking up," however well that may be performed. The determined resolution must be perseveringly carried out to put in the plow as soon as the thistles show a green surface, and this must be repeated to the third or fourth time, if necessary, previous to seeding, and if the season or time of plowing be hot and dry, so much the better. No one will understand that by this process a farm is to be cleared, root and branch, of this vile weed, in a single season, if indeed it be possible in a life-time, as the fields of the most careful farmer may be furnished from that of his adjoining neighbor with seed for a perpetual succession. It is merely intended to show the result of actual experience in some of the hardest cases in which good wheat has been raised without trouble from thistles. J. L.—*East Lansing, Tomp. Co., N. Y., Jan'y,* 1850.

STOCK IN GENESEE COUNTY.

BY E. S. BUCK.

EDITORS GENESEE FARMER.—I have just taken a trip for the purpose of seeing some fine cattle. Mr. HICOX, in Alexander, N. Y., has excellent cattle; he is much noted for matching and breaking steers, of which he has a number of yokes of different ages, all very good; one pair particularly, of two years old, handsome beyond discription.

I then went to see Mr. BRAINARD'S stock, in Attica N. Y., he has a large stock of Durhams, all in high order, and it would well reward any man to go and see them. He was not at home, but I could see much skill and intelligence in the management of every thing about him.

I then went to see Mr. BECK'S stock, in Sheldon, he was well pleased to show them, and well he might be. On going through his barn he opened the door which brought the cattle at once to view; and a more interesting sight I never saw. There were two large yards full of Devons, mostly pure blood; the older and the younger ones being kept separate, with a trough of pure running water in the middle. It was early in the morning; they had all been properly fed, and to see them play, was enough to make the heart rejoice. I saw other stocks of cattle which did credit to their owners.

On the other hand there are many Farmers whose cattle are half fed, and of all shapes and colors that can be thought of. Not having seen any better they suppose their own are excellent, or at least good enough, and have no thought of improving them. Such men should take some agricultural paper and they could learn to improve by the experience of others; they should go and see the stock of an intelligent reading Farmer, and learn the management of them; if so, we should have some fine cattle in almost every neighborhood, or at least in every town, which would be an invaluable benefit, not only to the owner, but to the community at large.

HEMLOCK SOIL.

MESSRS. EDITORS:—I notice in one of your papers an article on *Hemlock Soil.* I live in the town of Decatur, Otsego Co., and on hemlock soil, on a small farm of about 40 acres. For a few years past I have plowed some 3 or 4 acres of sod about the first of July, and let it lay until the last of August, and then thrown a light coat of manure over it, dragged it, and then sown my seed. In this way I have raised large crops of rye, much larger than those who plow two or three times. I think the more such land is plowed the more it freezes and thins out. Perhaps my experience may be of benefit to some. HAMILTON WATERMAN.—*Decatur, Jan.,* 1850.

SIMPLE REMEDY.—The following simple application for a horse's feet which are brittle, or hoof-bound, I learned from an English shoer, and having tried it with good effect and never having seen it fail, I send it to you to be used as you may deem proper.

Mix equal parts of tar and some soft grease, and having the foot clean and dry, apply it hot, but not boiling, to all parts, letting it run under the shoe as much as possible.

In bad cases the application should be made every day, for a while, and then two or three times a week, till the foot becomes strong and smooth. UTILITARIAN.—*Alfred, Alleg. Co., N. Y., Jan'y,* 1850.

Spirit of the European Ag. Press.

HUSBANDRY IN BELGIUM.

There is no subject connected with Belgium about which so much misapprehension prevails as its soil. We are accustomed to associate fine crops and superior farming with a fertile soil. And people generally, hearing of the great crops produced here, conclude without further inquiry that it is blessed with a fine soil and a finer climate—and the yearly, but not exaggerated account of the heavy crops, brought home by tourists, some of whom have compared the cutting of a field of wheat to the slicing of a plum cake, tend above all, to increase the mistake already abroad. The general character of the soil in the western provinces of Belgium, where the most perfect system of culture is carried on, is *lightness;* which includes all stages of fertility from the arid sand to the sandy loam. And though we find now much that really appears excellent soil, we have sufficient reason for supposing that it is not naturally rich, but has been brought to its present state of fertility by the most laborious cultivation, and there is not the least doubt, that if the farmers were to withdraw their careful attention from the soil, and the artificial treatment to which it is at present subjected were in the least relaxed, the broom and the fir would soon assert their ancient domain. The general aspect of the country is flat and open, not at all beautified by wood, and interesting to none but the farmer. There are no hedges, the fields being merely separated by ditches, on the banks of which are planted trees, which are cut at different intervals of time, from every fourth to every ninth year, according to the nature of the kind. They are planted merely to supply the people with firewood in those districts where other fuel is scarce. All kinds of trees are grown for this purpose. Some parts of the country are more wooded, which divests the scenery of that vapid tameness so peculiar to Belgium. But the cultivation of the country is by no means neglected. The luxuriant crops of rye, the healthy and equally dispersed drills of wheat, and the neatness with which all the fields are finished, give ample proof of the skill as well as the industry of the farmers. Grains of every stage of growth, and of every tint of green, flutter in the breeze, and the solid masses of ripe blossoms roll in the wind and form a beautiful contrast from their saffron yellow, with the surrounding crops. But there is still something wanting to animate this otherwise beautiful prospect. No herds enliven the landscape, no flocks send forth their bleating, and the milk maid's happy voice is mute. *Profit,* not *beauty,* is studied in Flanders. From Ghent to Antwerp we pass through the most thickly populated district in the world. There the soil is little better than sand, the most laborious culture is practised, and the greatest comparative average crops are raised of any district in Europe. In many places the soil presents a mottled appearance from the imperfect amalgamation of the sand with the decayed vegetable matter. In no part of the world, perhaps, is such strict attention paid to the tillage of each field; the consequence of which is, that the crops produced on the barren sand are not inferior to what you will find on ordinary soil. From the thickness of the population they are enabled to turn over almost all the soil with the spade, which would render the tillage, one would suppose, very tedious; but the tediousnes is not felt from the smallness of the farms and the excessive looseness of the soil.

A man with no pressure but that from his hands sinks the spade a foot into the ground; and truly it ought to be called *gardening,* rather than *farming,* from the great neatness and excessive care bestowed on every field. From the sandy nature of the soil, they are enabled to finish off each field with all the beauty of the flower-bed, while a border of well shorn grass, about ten feet wide surrounds the field, the edge of which is most carefully paved, so that on entering one of these fields, we are apt to suppose that we are trespassing on the carefully swept lawn of some noble residence. It is the Flemish farmers boast that the system of agriculture they practice has been handed down unchanged to them from their forefathers; and this is the more to be wondered at, when we consider that in no country have so many and such sanguinary battles and wars been fought and carried on as in Belgium. And yet the scenes of these dreadful struggles, the tendency of which is to retard all improvement, and to throw back to a state of pristine civilization all the arts of peace, of which agriculture is among the first, is also the seat of an organized and exemplary system of husbandry. Without attempting to account for this anomaly in the history of the arts of peace in a nation, let us proceed to inquire into some of the excellencies of that system which has been preserved amid the havoc of foreign and civil wars. The farms in Flanders are small, the average size not being more than fifty acres. Some are held on lease, others are not, and the duration of the lease varies from 3 to 15 years. The average rent for the best soils is not far from $8 the acre, besides the burdens or taxes, which usually amount to one-fifth the rent. The farmers of Belgium are a hard working class of men, in the habit of laboring on their farms, and generally ignorant of every other subject but their profession. But in this they show rare sagacity and experience. And though unaided by, and almost despising, the light of science, they discover in some parts of their system of agriculture a perfection to which science has never yet guided the farmers of this or any other country. The number of laborers, who live on the farm throughout the year is about six to the fifty acres, and they receive usually 20 shillings a month with their food, which the farmer values at about a shilling a day, making the full wages for a man equal to about $75 a year. Their food consists of boiled milk and bread for breakfast, soup or butter-milk and bread and butter for dinner, with potatoes and meat five times a week, and bread and milk for supper. They work at the different seasons of the year from ten to fourteen hours a day. The day-laborers, who are only employed at certain seasons, receive from 14 to 18 cents a day, with their food, and the boys and girls 10 to 12 cents. This must seem to us a very low rate of wages, but when we consider the corresponding cheapness of the necessaries of life, and that a laboring man can live very comfortably in any town in Belgium by paying one dollar a week for food and 20 cents for rent of a room, it alters the case materially. The number of horses kept on a farm is at the rate of a pair to fifty acres, and the number of animals supported altogether on such a farm far exceeds any thing we are accustomed to in this country. This, indeed, as we shall hereafter see, is one of the secrets of their farming. The keep of a horse is estimated at thirty cents a day. They are fed during the winter on oats, straw, beans and hay, and in summer on cut grass. They are small, but compact, of beautiful action and high-spirited. These sleek Flemish horses were for ages held in high esteem in England and other parts of Europe. Their breed of cows is not distinguished by any peculiar excellence, as no attention has been paid to improving it. They have a practice by which they ensure the regular feeding of the calves, which is considered by them essential to quick fattening. This is, immediately after they have got their usual quantity of milk, to put baskets over their mouths, to prevent their eating anything in the interval between the feeding times. Very few sheep are kept, and these are of the worst description. Their fields are small, and merely divided by ditches. Such a thing as a hedge or a fence enclosing a field is never seen. These are unnecessary from the peculiar management of their stock. Under-drainage is rarely practised. Indeed the nature of the soil is such as not to require it. But to promote the drying of the fields, and to draw off the surface-water from the plants, a spading of earth is taken from each furrow, and scattered over the ridge, so that in a heavy shower, the rain-water finds a ready course to the ditch which skirts the fields. The attention which is paid to the working of the soil is one of the points in which they show their skill of management. They forbear from sowing any crop until the soil is thoroughly pulverized by repeated plowings and harrowings, and frequently resort to the spade to give additional depth to the furrow, and better to prepare the soil for the reception of the seed. The plows used by Belgium farmers are so simple and rude in their construction as scarcely to deserve the name. And in most parts of the country the spade is much more used for agricultural purposes. Such is the abundance and cheapness of labor, and the comparative scarcity of land, that it is common to weed out fields of grain and especially of flax, with as much nicety as a gardner in this country would weed a bed of carrots or onions. At certain seasons you will see rows of women in the fields creeping on their knees among the young crops and picking out with the greatest care the injurious weeds and grasses. This speaks well for the industry of the people, and could only be practiced in a community proverbial for indomitable patience and perseverance.

We now come to a subject which explains the grand secret of the success of the Flemish farmer in raising such large crops, and in transforming a country naturally unfruitful into what may justly be called the "garden of Europe." This is *his economy in saving, and skill in applying manures.* His first object and great aim is to save every thing which can possibly be converted into a fertilizer, to put back upon the land, and supply the constant drain of the elements of bread and meat which his large crops require. His ashes-cart and urine-barrels traverse every street in the town, and every bye-way in the country, to collect these valuable fertilizers to spread over his land. I have already mentioned the large number of animals, compared with the extent of the farms. This is an important feature in his system of husbandry, as they are kept tied up all the year round, and the utmost care taken that none of the manure is wasted. It is in this management that the farmers of Belgium excel those of every other country, and by this system they are able to raise larger crops than any other body of farmers in the world. Ashes are extensively used as a top-dressing, especially for clover. And they set so high a value, and depend so much upon them for the success of their clover-crop, that it is a current saying that, "he who buys ashes for his clover-crop *pays nothing*; but he who does it not, *pays double.*" On this all-important subject, the saving and application of manures, the farmers of our own country can learn a lesson from those of Belgium, and we may perhaps make it the subject of a future article. Suffice it now to say that this art, combined with unwearied industry and perseverance, has enabled them to convert a country naturally poor into one of unrivalled fertility.
—*Washington, Dec.*, 1849. W.

CULTIVATION OF CARROTS IN FRANCE.

The skill of French farmers in cultivating root crops is well known. In no country in the world is the sugar beet so extensively and successfully grown, both for extracting the sugar, and for feeding to stock. The carrot seems lately to have attracted much attention among the most experienced farmers, and I give below their most approved method of cultivating this valuable root, by which they often get a crop of 12 to 1500 bushels to the acre. The variety mostly raised is the *large white, green topped,* which grow a good deal out of the ground. They are prefered to the orange from their producing so much larger crops, although they are acknowledged to be less nutritious. The experience of the best French farmers is, that *three tons of carrots* are worth as much as *one ton of good hay,* either for keeping horses or milch-cows through the winter, or for fattening cattle. Now, estimating the crop of an acre of carrots at 1000 bushels, and by proper cultivation it can be made far to exceed this, you have what is equivalent to at least *ten tons of good hay,* which as the produce of one acre, well repays the extra labor and trouble required.

The analysis of this root, as well as the experience of farmers, shows that 60 lbs., of carrots given to a cow will supply as much of the materials to be elaborated into milk as 20 lbs. of clover hay. Both cattle and horses eat them with avidity, and after a little time appear to prefer them to any other kind of food. These facts all recommend the more extensive cultivation of carrots by our farmers, and I translate the following from the "Journal D'Agriculture Pratique," as the most approved method of preparing the land &c., now practiced in France.

To ensure a large crop of carrots you must have a deep well drained soil, *sandy loam* is best, with a sub-soil through which the root can easily penetrate, it must be completely pulverized, and rendered light and friable by the frequent use of the plow and harrow; it must be well enriched with manure, and above all be kept free from weeds. By observing these conditions you can depend with some degree of certainty upon an abundant crop, and one that will amply repay the labor expended. In the fall, soon after harvest, select a suitable piece of land from your wheat stubble, and give it a light plowing about the last of October. Two or three weeks after give it a second plowing still deeper, or what is better, go over it with the sub-soil plow, having first spread evenly over the land about one-half the quantity of manure you intend for the piece. Let it remain in this state during the winter, and the effect of the snow and frost will be to pulverize and mellow the soil, rendered light and permeable to the air by the fall plowing. In the spring, as early as the weather will permit, spread over the remaining half of the manure, and plow it once more. This throws up on the surface the manure first applied, which is already partly decomposed, and buries beneath the soil that last put on, where it more readily undergoes the decomposition necessary before it can supply the food to the future crop. The land thus prepared should remain until about the 1st of May, before putting in the seed. It should then be gone over with the harrow, and rendered as level and smooth as possible. To sow the seed, a small seed-drill is useful, as it saves much time and labor. When this cannot be procured however, it can be done by hand. The drills should be two feet apart, and as straight as possible. This is necessary that you may use a horse cultivator or small plow to run through the rows, which saves much labor in weeding. The quantity of seed required to the acre is about three pounds. It is best to sow it thick, and the first time you weed them, to thin out the plants, so that they may stand three or four inches apart. In this way they grow much larger, and although fewer in number, they will yield on the whole a much greater crop. It is sometimes said that carrots delight to grow amongst weeds, and it does seem as if the reverse of this is true, that weeds delight to grow among carrots. Indeed, it is the labor of weeding them, that deters many farmers from cultivating them extensively to feed to stock. But if they are carefully weeded out twice during the season, and frequent use made of the horse-cultivator to run between the rows, it will be found quite sufficient, and will not constitute a very severe tax upon the time and patience of farmers. They should be allowed to remain in the ground as late in the fall as the weather will permit, as it is found they keep much better in this case, than if harvested early. In most parts of France the climate is so mild, as not to render it necessary to dig them up, until they are wanted to feed out to stock during the winter. But in England and other countries where the winters are more severe, they are either stored away in cellars, or piled up in the field, and covered first with straw, and then with a light coating of earth which protects them from the frost. W.

THE "GOOD TIME COMING."

I REGARD the Farmer as the best paper of the kind with which I have the pleasure of an acquaintance. I hail this as a promising era to the Agriculturists of our country. They are, as a mass, awakening to a sense of the importance and honor of their calling, and the time will soon come when, instead of being looked down upon as an inferior class of beings, it will be considered as the most honorable title which can be applied to a man, to call him an intelligent farmer. But this state of things can not be hoped for without an unceasing effort. The farmer, instead of striving to become notorious in the political world, must bend his whole energies to the improvement of his farm, his stock, his system of husbandry and his *mind.* He must show to the world that he is proud of his profession by bringing his children up to it, and that too, with an education that shall make them men fitted for any station. And then, and not till then, may we expect Agriculture and Agriculturists to hold that place in society to which they are justly entitled. UTILITARIAN.—*Alfred, N. Y. Jan.* 1850.

Drill Husbandry.

CORN vs. WHEAT—DRILL CULTURE, &c.

MESSRS. EDITORS:—Much has been said on the relative profits of the wheat and corn crops of Western New-York. If you please, I will give you a short chapter of my own experiments. Last spring I found myself in possession of a field of eight acres on which wheat had been grown the preceding year. It was thickly seeded with blue grass, which I resolved to chastise by thorough summer-fallow. I had it turned over the last of April for that purpose, but then altered my mind and concluded to plant with corn. This last operation has completely annihilated the blue grass, a result which I could hardly have obtained by the most thorough course of summer-fallow. But now for the crop. I harvested from the 8 acres 600 bushels of ears of good corn. Not a very extraordinary crop you say, but wait a moment. Assuming that two crops of corn can be raised on the same piece, to one of wheat, and we have the following result:—The two crops as above, will give six hundred bushels of shelled corn, which at fifty cents a bushel, the average price, would give $300. One crop of wheat, at twenty bushels per acre, which is an average yield, would give, from the eight acres, 160 bushels, which at one dollar per bushel, would leave a balance in favor of the corn crop of $140, to say nothing of the cleansing of your fields of blue grass, red root, insects, and all the mighty hosts of enemies with which the wheat grower has to contend. Try it farmers of Western New-York, and see if I have figured right. Get you a wheat drill, if you have not one already—*any* one of them will answer. Seymour's is the *best.* By the way, do not be discouraged about the drilling system, because our enterprising friends at Brockport, in their efforts to simplify and cheapen, so as to bring their drill within the means of *all,* have given us a machine which is not in all respects perhaps what it should be, they will remedy that another year, and give us a *better* one. Get you a drill, I say, to plant your corn; and then a boy, with a team, will plant his 12 acres a day, and grow finely at that. Fill your cribs with the golden harvest; not to sell to the distillers to convert into whiskey, that bane and curse to humanity, but to convert into beef, pork and bread, to cause the heart of man to rejoice, and the widow's tongue to sing for joy. Do not plow up your ground in the fall (the opinion of Dr. LEE to the contrary notwithstanding) to bleach and "waste its fragrance in the desert air," but if practicable, plow it up one day and plant it the next; and then the fertilizing gasses (I do not know their names—Dr. LEE will tell you) as they escape from the earth, will be taken up by the growing crop and held in solution or in reserve for the future perfecting of the crop. Mother Nature is a great economizer, and curious rectifier of these matters. Read again the article in the last Farmer on the Philosophy of Tillage, and *blush* with me, at your ignorance of the *profession* which you have loved and cherished your life long, and resolve to send your sons to the Agricultural College which the *people* are now *demanding,* at the hands of your sapient legislators, as there is now some prospect that this just and reasonable demand, which we have made in vain these many years, will at last be granted. CALVIN SPERRY.—*Gates, Monroe County, N. Y., January,* 1850.

THE USE OF THE DRILL.

I HAVE used for the past two seasons the Drill for putting in the most of my wheat crops. Having come to the conclusion that the principle of *drilling* was the preferable mode of sowing grain, I, in the fall of 1848, hired a drill of RAPALJEE & BRIGGS, Rochester, one of Pennock's Patent. I did this for the purpose of experiment. It was the first drill used in this vicinity, and the result of its operations were watched with a great deal of interest both by neighboring farmers and myself.

The lateness of the season at which I procured the drill rendered it impossible to sow but few fields except my own; and indeed, I did not sow all my own wheat with it that fall,—using the gang and the harrow in the same field with the drill. The experiment confirmed me in the opinion I had formed of its utility, and I believe removed the doubts of a great many with regard to its usefulness, as is attested by the purchase since of quite a number of wheat drills in the neighborhood and vicinity; and if they do not come into general use, it will be owing more to bad construction, or want of skill in their use, than to any thing else.

The grain sown by the drill spoken of above grew and yielded handsomely. It was thought by some as well as by myself, that there was a marked difference in some fields in favor of the drill over either the gang or harrow; in others I could see no difference. Be that as it may, I again repeat my confidence in the mode of drilling in grain as preferable to any other now in use.

I do not know that my reasons for that opinion are new to any one, or different from the reasons of any body else, whose views coincide with my own with regard to the drill; but as my opinion has been frequently asked with reference to its use and benefits, its profitableness, &c., and which has always been expressed favorably, I will state MY REASONS for that OPINION, briefly.

First—The quantity you wish to sow to the acre can be determined, with great precision and accuracy; so much so that you might almost measure your land by the quantity of seed sown; no guess work about it.

Second—When the exact quantity of seed to the acre is determined upon, that principle of sowing which will give the most reasonable assurance that every grain sown will germinate and come to maturity, is most certainly the one to be adopted. The mode or principle that gives that assurance, (practically compared with any other in use,) is that of drilling; BECAUSE every grain is covered, and to such a depth as to insure germination, growth, and protection, till it is ready to yield up its 60 or an 100 fold. You see no seed lying scattered over the ground unburied where the drill has been to work, as is too frequently the case when sown broad-cast and put in with the harrow and other methods. No seed covered so shallow as merely to insure its sprouting and coming up, to grow awhile and then perish at last, for want of decent burial at first, sufficient to give it nourishment and support to the end. The drill in a great measure relieves you from these painful calamities.

Thirdly—On lands that are known to heave and leave the roots of crops exposed to the severity of cold bleak winds and frosts, the benefit of drilling must be apparent, owing to the reason, that the depth to which the seed is put in the ground, and the close manner in which the roots become matted together, before the frosty season comes round, give to the grain such a power of protection and resistance as greatly to overcome the evil.

Fourthly—Will a less quantity of seed to the acre drilled in, produce as much as the usual quantity sown broad-cast? (i. e., will 5 pecks, for instance, drilled in produce as much as six, sown broad-cast?) I cannot answer that question from experience satisfactorily to myself, and consequently to no one else. I am experimenting on that point, and will cheerfully make public the results when known. I can only say now that I incline to the opinion that a less quantity than is usually sown broad-cast, will answer. Why not, if a greater quantity of seed comes to maturity, when sown by the drill?

Fifthly—Can we obtain an equal amount of yield from the acre, by sowing the same quantity to the acre with the drill as when sown broad-cast? Most assuredly. And,

Sixthly—I would use a drill, whether I obtained any greater yield, or only as much, either from a less or the same quantity of seed sown to the acre, as by the usual method of broad-cast sowing, because it is such a neat, clean, handsome, satisfactory way of "seeding;" after your ground is properly prepared, one operation being all that is necessary to finish up in complete style both sowing and covering, saving the labor and expense of the former. If the rain comes down in the midst of your labor, you can bid it welcome; for it finds you with your work, *so far completed*. If your field is ready to sow, and you want to begin on a certain day, high winds need not prevent.

Seventhly—If my ground is suitably prepared, I can plant my corn, beans and peas, with a little extra care, as well with the drill, as in any other way.—Quite a saving of labor here.

The above, then, are in brief, chiefly my reasons, in favor of the principle of drilling. I have been asked how the drill would do on lands that are sweaty and spouty, where wheat is liable to perish on that account. I answer that the drill is no remedy against such an evil; and would advise such as have lands of that description to thoroughly underdrain, as the only remedy, and then the drill can be used upon them with pleasure and profit both.

Speaking of the drill, it is not to be supposed that it is yet brought to perfection, and no doubt all kinds have their faults and objections; some of which are vital, others of a less serious nature. We must be careful to procure the best in use. In my remarks on the relative value of drills, I shall speak only of those with which I am acquainted, and of those of which I have reliable information.

I found in using the Pennock Drill, although it executed its work sufficiently well and satisfactory, so far as getting the seed into ground was concerned, yet its complication, or perhaps I might better say, *the* fixtures, employed to adjust the drill-tubes, feeding-boxes, cylinders, &c., rendered access to these same drill-tubes, feeding-boxes, cylinders, &c., the very parts most needing care and attention while the drill was in operation, almost impossible, so far as relates to ease, facility, comfort, and what is of more value, profit—(time.) If any little accident occurred, such for instance, as the breaking of the "Wooden Peg," common to all drills, I believe, it was with some considerable difficulty with which you could worm your way to the place of accident for its restoration. The same with regard to regulating the screws in the cylinder for the purpose of sowing a greater or less quantity of seed to the acre; as well also, as of a great many other little things absolutely necessary to to be "fixed" or handled during the time occupied in drilling. This rendered the use of said drill, to me at least, vexatious and troublesome, and quite objectionable; still it has its virtues. The principle of feeding with a cylinder I am much in favor of; if the drill is well made, and of good material it must be said to be *a good drill.*

I have not used the ***Brockport Drill,*** myself, but have examined it somewhat closely, and seen it in operation, as there were several bought and used in my neighborhood the past season. The drill seems to be simple in construction, and apparently quite easily handled and attended. But there is an objection or two brought against it, by some who have used them, which if true, must be vital: — and these are, that they easily clog in feeding, and do not distribute the seed evenly along the drill row, the feeding being done in pulsations. This is to be regretted; and it is to be hoped that the evil is not without remedy.

Of the ***Seymour Drill,*** I can only speak from reliable information. It is said to be a very simple, well constructed, handy, desirable drill. Mr. Seymour attaches an apparatus for sowing plaster, ashes, &c., to his drill, if the purchaser requests it.

I used myself, last fall, a drill invented and built by Bickford & Hoffman, of Macedon, Wayne Co., and must say I am much pleased with it. I cheerfully bear testimony to the complete and satisfactory manner in which it performed its work, executing it to my entire satisfaction every way, and especially as regards the three vital duties a drill has to perform, viz, regulating the quantity of seed to be sown to the acre, its equal and even distribution along the drill-furrow, and the depth of its burial in the ground. It feeds with a cylinder. The drill is simple in construction, and can be used with great ease and facility, owing to the readiness with which you can approach all its parts, especially those needing handling and attention while in use. It is strongly and firmly made, and of good material.

I know of no objections to the drill that are vital, nor none of any kind that need deter its purchase and use. I think it might be improved in a still more handy application of its apparatus used in raising and dropping the drill teeth, &c. Raising and lowering them all at once for instance.

But these things will readily suggest themselves to the inventor and many others, who will no doubt make improvements to it, as fast as its practical use shall develope their necessity. W. S. Fullerton. —*Sparta, Liv. Co., N. Y., Jan. 1st,* 1850.

SENECA COUNTY FAIR AND TRANSACTIONS

We have received from John Delafield, Esq., the able and energetic President of the Seneca County Agricultural Society, a beautifully bound and printed copy of their transactions, for 1849, in quarto form. We only wish that every county in New York, and the Union, had such a society, and each society such a President. We give a short extract or two from the address of Wm. F. Coan.

Farmer, or mechanic, or laboring man of any calling, are you willing that your son, only because he holds the plow, or blows the forge, or drives the loom, shall be made to stand upon the outer porch and denied admission into that inner sanctuary where intelligence and refinement hold their Court! Shall your wife, shall your daughter, shall my daughter, when she takes her place in community, or society, shall her cheek be made to blush, not from guilt, not from a lack of cultivation, refinement, or of beauty, as she is pointed to a lower seat, solely because her husband or her father is a sunburnt farmer or a laboring mechanic! If ignorance or any other untoward cause has placed its withering hand upon us as a class, and confined us to a secondary position, let it be so no more. I speak to you, this day, in behalf of interests near and dear to me, and excuse me if I speak earnestly. No other design actuated the men who founded and sustained these agricultural societies, but to diffuse light and refinement in the place of ignorance and rudeness. And I felt it my duty, as I wish every man did his, to come and contribute of my means and my influence, limited though they be, to sustain this Society, whose annual celebration we have been permitted to attend.

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If your children are not under the necessity of cutting down the forest and subduing the uncultivated wild: if the kind parent has endured privation and want that his child may not: may the blessing of God and your child's gratitude be your's; but, may we ask, if, while you have filled the purse of your child, you have neglected his head? Alas, the remark or the question could not be answered by a great many without a blush, for many a father and mother too, live, so that they may, when dying, put much money or farms in the hands of children who cannot write a legible hand or spell beyond three syllables.

Do you say that you have not the time to devote to the cultivation of your child? Have you time to cultivate broad fields? Have you time to cultivate everything that adorns the farm or yard, and have not time to cultivate your own or the minds of your children? What makes you to differ from your ox? Nothing but the mind. If you fail to supply the mind of yourself or your child with wholesome, invigorating food—if you fail to occupy the mind with intellectual knowledge, it will be occupied with knowledge of a baser sort.

RURAL PURSUITS.

We take the following extract touching this subject from the excellent Address delivered by S. B. Parsons, of Flushing L. I., before the New Haven Hort. Society:—

"I recollect two prominent instances of the effects of these widely differing modes of life. A man of talent, strong mind, and energetic character, came years ago to reside in one of our large cities. He became a merchant; he devoted his whole soul to the acquisition of wealth; he made money his idol and his success was beyond precedent. He became enormously wealthy, house was added to house and land to land. His character became year by year more narrow and his hand more grasping, until no other thought occupied his soul but that of money. About the same period of the commencement of this man's career, there entered upon active life in a highly fertile rural district in the interior of the same state, a man of equal talent, of equal energy, and of practical ability, recognised by the highest in the land. Commencing life as a surveyor, he was early familiar with the beauty and pleasures of country life, and his soul became insensibly refined by evidences of Almighty benevolence around him. With abundant opportunity to profit largely by purchase of public lands, he confined himself to his business, and retiring with a very moderate competence, occupied himself with his farm and various branches of natural science. As a botanist he had scarcely his equal, and as a keen observer of natural objects he has not a superior. His style of living is of the simplest kind, and every thing about him indicates the superiority of the mind over the body. When I last saw him it was delightful to witness his simplicity of manner, covering, as I knew it did, so much intelligence and intellectual cultivation. And although his hair was white with age, his eye would sparkle with pleasure while descanting upon the beauty of a favorite tribe of plants.* Now can there be a question whose life was the most rational or most productive of enjoyment, this man's or that of the man of millions."

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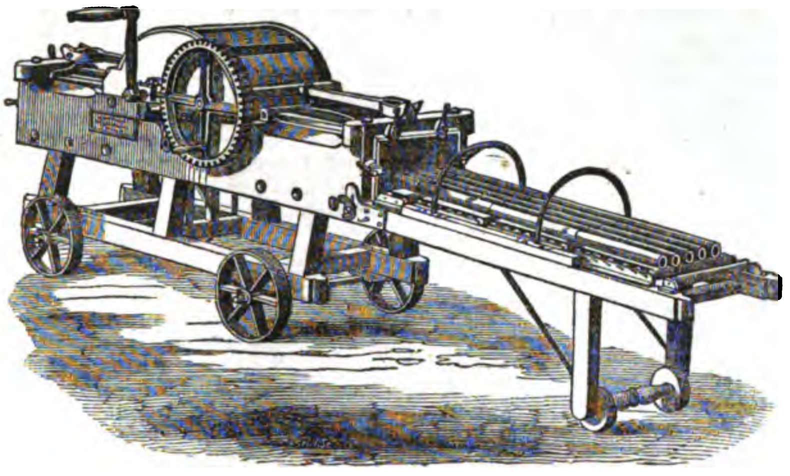
* This is such a faithful portrait of our venerable friend David Thomas, of Cayuga Co., that those who know him will at once recognise it.



TILE MACHINE—IMPORTED FROM EUROPE BY J. DELAFIELD, ESQ.

DRAIN TILE MACHINE.

Draining, now so generally practiced in some parts of Europe, is attracting considerable attention in our country. In the last volume of the Farmer we gave all the information perhaps necessary, and we now refer to the subject for the purpose of noticing the Tile Machine recently imported from England, by J. Delafield, Esq., President of the Seneca County Agricultural Society, for making Drain Tiles, Soles, Pipe and other objects of use to farmers.

This Machine combines every improvement which has been sanctioned by the experience of the English and Scotch Agriculturists. It has a variety of dies, either of which can be used and changed at pleasure. Mr. B. F. Whartenby, of Waterloo, Seneca County, N. Y., who is an experienced Potter, works this Machine, and has already furnished a variety of drain tile to the farmers at very reduced prices.

The high price of tiles has been the great objection to their use in this country: the facility with which they are made by this Machine has reduced the cost. The following list exhibits the sizes of Tiles and Pipes which can be produced as needed, with their prices at the factory.

DRAIN TILES.

4 inches high, by 15 inches long at	$15	per 1000 Tiles.	
3 " " " "	12 50	" "	
2 " " " "	10	" "	
Soles for the above, if required,	$6 25	per "	largest size
" " "	5	" "	smallest size

DRAIN PIPES.

4 inches diameter, 15 inches long, at	$16	per 1000 pipes.
3 " " " "	14	" "
2 " " " "	10	" "
1½ " " " "	9	" "
1 " " " "	8	" "

Pipes of larger size can be made by this Machine, also semi-cylinders of 6 and 11 inches diameter. Roof and ridge tiles are turned out with equal facility. To all who desire to understand the system of draining, we advise a reference to the article contained in the last volume, (1849,) October number.

A plowman on his legs is higher than a gentleman on his knees.

MORE LIGHT GIVEN.

BY CALEDONIA.

Messrs. Editors:—In answer to "*Ridgway,*" I will in the first place remark, that probably no one in perusing the statistical products of the farm referred to, in the October number of the Farmer, but will readily percieve a typographical error in relation to the number of acres of improved land. Instead of ninety-six acres, it should have been one hundred and ninety-six. This farm is all arable land, all susceptible of producing the finest wheat, or grain of any kind, and also well adapted to clover.

In order to satisfy Mr. Incredulous, I will state the manner in which the farm has been cropped and cultivated, during the time I have been acquainted with its management. The farm is regularly divided into 17 lots, each of which is appropriated either to wheat, corn, barley, oats, or clover, alternately. For the purpose of discriminating the fields they may be numbered, and the quantity of land in each exhibited. Lot No., 1, containing 6 acres; No. 2, 10 acres; No. 3, 16 acres; No. 10, 15 acres; No. 11, 18 acres; No. 14, 22 acres; and No. 17, ½ acre; were in wheat at the time the farm was purchased. Some of the fields lie adjacent to the highway, and in their measurement a portion of road is included, therefore the quantity of wheat on the ground, was in the neighborhood of 85 acres. Lots No. 5, containing 6 acres in barley; No. 9, 10 acres, in corn and potatoes; No. 15, 8 acres, in oats; No. 12, 14 acres, in meadow; the balance of the fields in pasture, and about 4½ acres occupied by buildings and garden.

His stock consisted of five horses, four cows, 35 sheep, after disposing of 26 fat ones, and a sufficient number of swine to make pork for his consumption. The corn and oat crops averaged about 40 bushels per acre, which afforded sufficient feed for teams, making pork, &c. Eight bushels of clover seed was sown on the fields, under wheat, and five tons of plaster. In lots No. 2 and 3 the clover caught well; the others very indifferently, owing probably to the wheat being extremely thick and heavy, and the fore part of the season rather dry.

The next season, were fallowed, lots No. 4, containing 16 acres; No. 6, 6 acres; No. 7, 12 acres; No. 8, 20 acres; No. 13, 10 acres; all of which were cropped, with the exception of No. 13, which was put in on the first furrow with the cultivator; and lot No. 5, was put in after barley and well manured.—Making 70 acres, including fence and some road.

Lot No. 8, was the last field sown, fininshed on the 19th. of Sept. There were 30 bushels of seed, (soles wheat) sown on this field, which was a trifle more than 1½ bushels per acre. It was harvested and thrashed separate from the rest of his crop;—it produced 793 bushels, all of which was suitable for seed, and more than one half was used as such. This lot lies adjoining the highway, and the 20 acres includes nearly one acre,of road.

Lots No. 1, 9 and 17 were sown to barley without any manure; they produced 484½ bushels. Lot No. 15, was sown to oats again, in consequence of the drouth destroying the clover the year previous; the crop was more abundant than the first—some 45 bushels per acre.

Lot No. 12, a clover sod, which had lain two years, was planted to corn and potatoes, without applying any manure, it produced 1425 bushels of ears of corn, and 164 bushels of potatoes.

Lot No. 2—a crop of clover hay was taken from it the last day of June, and at the commencement of September following a crop of seed of 29 bushels. This item was omited in the products of the second year, therefore $85 should be added to the profits of the farm, and a sufficient quantity was reserved for the use of it for the next year.

Lots No. 3, 10, 11, 14 and 16, (the last of which contains 2 acres, and appropriated to the most choice fruit trees which furnishes a large supply of all kinds of fruit,) were in pasture. The quantity of clover seed sowed on this part, was seven and one half bush. and 6¾ tons of plaster were sown on the wheat and barley, and some 400 used on the corn and potatoes. The clover this season took as well as could be desired, the fields at the begining of winter were clothed with one of the most valuable fertilizers of the soil that can be produced, and from which the finest crops always ensue. The farm this season kept six horses, four cows, three calves, ninety-five sheep, and fifteen swine.

The lots put into wheat, the third year were No. 10, 11, 14, 16, all of which were fallowed early, and plowed twice. No. 15, was put in after the second crop of oats, with a fine dressing of manure; and lots No. 1, 9 and 17 were sown after barley, which make 80 acres and upwards. Lot No. 12, was in barley, the remainder of the fields were either mown or pastured. That which augments the profits of every farm, is the growing of all kinds of spring crops, at least in quantities sufficient for the feeding of teams, fatting pork &c. The occupant of this farm produced a surplus of these crops; therefore instead of using a portion of the money arising from the wheat in bying mill-feed for teams, &c. he has added several hundred dollars to his profits, from the sale of barley and corn.

This farm contains preicsely 215 acres of land, 196 of which is cultivated. It was bought in the winter of 1847, for the sum of $3,100, with 85 acres of wheat on the ground; it was sold a few weeks since at $70 per acre. There are 65 acres of wheat on the farm, and 10 acres of which are reserved in the sale, which at least is worth $200. The expense in making improvements during the time, will not exceed $150.

The occupant's net profits from the farm for the whole period, after deducting all expenses, amount to $6,300; which pay an interest of fifteen per cent on the capital invested, including $700 of capital for money invested in teams, utensils &c.

If I have not been sufficiently minute in a detailed history of the management of the farm referred to and in order to satisfy or remove the doubts of "Incredulous," I will make another effort, if requested.—*Caledonia, Liv. Co., N. Y., Dec.*, 1849.

IMPORTED CATTLE—BATES' STOCK.

The August number of the "Farmer," for 1849, contains an article on the "recent importation of short horns," which does not entirely coincide with my views. The writer, referring to the bull, 3d Duke of Cambridge, which he had the honor of importing, says: "Breeders, desiring the blood of Mr. Bates, can no wnere else in this country, procure it *with such high characteristics of style, quality, symmetry, and substance.*

Allow me here, before discussing this paragraph, to remark, that *honorable competition* in breeding domestic animals, cannot fail to be a fruitful source of improvement, and should be countenanced and encouraged by every individual who desires to see the stock of our country raised to that high standard which its importance so justly merits and demands. The individual, however, who enters upon this enterprise with a desire and a determination to excel, will soon find himself surrounded with perplexities and prejudices, which he little anticipated; and, however desirous he may be to avoid controversy, circumstances may occur, where justice, both to himself and the public, demands that he should no longer remain silent. Experience will also sooner or later prove, that there is neither honor or profit to be acquired, by resorting to the frail support of either directly, or indirectly, assailing, or endeavoring to disparage the stock of others, by the assumption of high sounding pretensions, which cannot bear the test of truth and scrutiny.

But to the point. We presume no one will deny, that any one animal from any herd, to possess the power of imparting to his produce, "*higher characteristics of style, quality, symmetry, and substance,*" than any other animal from the same herd *must* possess more of the *choicest blood* of that particular herd. To doubt this, is at once questioning the efficacy of *blood animals*. The most natural inquiry, therefore, which would arise from a perusal of the paragraph quoted, would be—"What is the *particular strain of blood*, in the late Mr. Bates' herd, which is superior to *all other*, and which gave him such a deservedly wide spread fame and reputation as a breeder?"—Now let this simple fact be clearly defined, and if 3d Duke of Cambridge possesses more of *such blood*, than any other animal in this country, then he may be fairly entitled to his claimed position of superiority. This is a point of the greatest importance to breeders of Short-horns in this country, and *particularly* so, to "all who wish to procure the blood of the late Mr. Bates' herd."

In order, therefore, to prove to the public conclusively, and to place the matter beyond the possibility of a doubt, that the *choicest blood* of Mr. Bates' herd consisted in his *pure, unalloyed Duchess tribe*, we quote his own opinion, from a communication addressed to the publishers of the print of his bull, Duke of Northumberland. After giving the pedigree of this bull, Mr. Bates says:—

> "The *whole* of this family" *(Duchess family, S. P. C.)* "of Short-horns are *alone* in my possession, having purchased my original cow of this tribe of cattle of the late Charles Colling, Esq., of Ketton, near Darlington, 35 years ago. They had been in the possession of Mr. C. Colling, 20 years, who purchased his *original cow from Stanwix*, of the agent of the late Duke of Northumberland, and called *her Duchess*, (which is the reason I have named the bull after that family,) as they are justly entitled to be held in commemoration for having possessed a *tribe* of cattle which Mr. C. Colling repeatedly assured me *was the best he ever had or ever saw*, and that he was never able to improve upon *her*, although put to his *best bulls*. And I have undoubted information from the best authority for saying that *this tribe* of Short-horns, were in the possession of the ancestors of the present duke, for *two centuries*; and that Sir Hugh Smythson, the grandfather of the present duke, kept up the celebrity of this tribe of cattle by paying the utmost attention to their breeding; and that he used regularly to weigh his cattle and the food they ate, to ascertain *the improvement made in proportion to the food consumed;* a system I adopted nearly 50 years ago, not knowing that it had been previously done; and from a minute and close attention to this subject, I obtained that knowledge of cattle, which enabled me to judge of their *real merits by their external characters*—and which I have never found to fail in my experience for above forty years as a breeder. From that knowledge, thus acquired, I selected *this tribe* of Short-horns as *superior to all other cattle,* not only as small consumers of food, but as great growers and quick graziers, with the finest quality of beef, and also giving *a great quantity of very rich milk*. The cow I bought of Mr. C. Colling, in 1804, calved at Halton Castle, in Northumberland, June 7th, 1807; she was kept on grass only, in a pasture with nineteen other cows, and made in butter and milk for some months, above *two guineas* per week, or *forty-two shillings* in English money."

We have in this extract, the opinion of Mr. Bates himself, in regard to the Duchess blood, as being *superior to all other*—also confirmed by the opinion of Mr. Charles Colling, who repeatedly said, *it was the best he ever had or ever saw.*

Now, whether this 3d Duke of Cambridge possesses more of *such blood,* or, if you please, has the blood of Mr. Bates' herd, with "higher characteristics of style, quality, symmetry and substance," than any other bull in this country, a brief reference to *pedigree* will show.

> "*Pedigree of the 3d Duke of Cambridge,* (5942.) Roan, calved September 14th, 1841, bred by Thomas Bates, property, &c. Got by Duke of Northumberland [1940]; dam Waterloo II., by Belvidere [1706]; grand dam by Waterloo, [2816]; g. g. dam by Waterloo, [2816]." [Coates' Herd Book, 4 vol., page 614.]

By this pedigree it will be seen that 3d Duke of Cambridge possesses *only one quarter* of Duchess blood—his *sire,* Duke of Northumberland, being a *half* Duchess bull, and his *dam* Waterloo II, *having no Duchess blood in her.*

Among the individuals who have imported stock to this country from the late Mr. Bates' herd, we believe the importations of Mr. George Vail, of Troy, N. Y., have been the most extensive. In 1839 or 40, this gentleman imported direct from Mr. Bates, a bull calf, Duke of Wellington, and a heifer, Duchess. For the purpose of *comparison,* we insert the pedigree of Duke of Wellington, *55,* [3654] as given by Mr. Bates.

> "Roan, bred by Mr. Bates, &c. Calved Oct. 24th, 1839; got by Short-tail, [2621]; dam Oxford, [having obtained the first prize for the best Short-horned cow, open to all England, in July, 1839, given by the Royal English Agricultural Society,] by Duke of Cleaveland, [1937]; g. d. Matchem cow, by Matchem, [2281]; g. g. dam by Young Wynyard, [2859] sometimes called Young Wellington."

By this pedigree it will be seen that Wellington's sire, Short-tail, was also a *half* Duchess bull. So far then his *equality* with Cambridge, as to Duchess blood, is established. But if we examine a little farther into this pedigree, we shall find that Wellington's dam, Oxford Cow, was *also* got by a *half* Duchess bull, Duke of Cleveland. Consequently, the *produce* of Wellington, from a cow *without* Duchess blood, would possess nearly as much Duchess blood, as Cambridge himself.

For the illustration, and to show the puplic that there are other animals in this country that possess *more* Duchess blood than Cambridge, we insert the pedigree, in part, of Mr. Vail's Duchess.

> "White—bred by Mr. Bates, &c. Got by Duke of Northumberland [1940], dam Non-such the 2d, by Belvedere [1706], g. dam Non-such by Magnet, [2240.]" &c. &c.

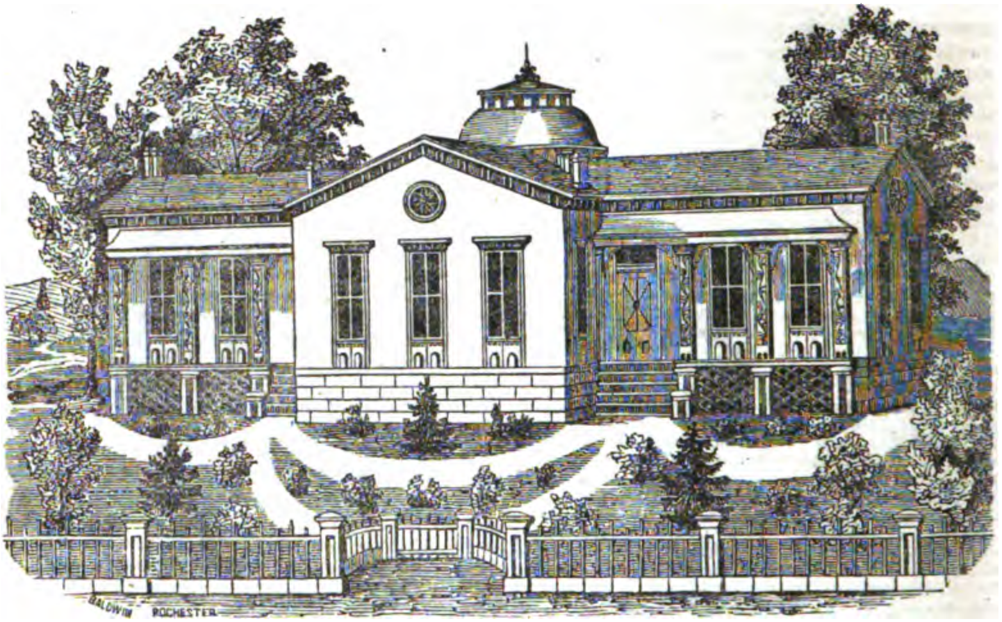
Mr. Vail's prize bull, Meteor, 104, was out of this heifer, and his sire is Duke of Wellington. He has therefore *three crosses* of the Duchess blood, and so also have the bulls Mr. Vail has sold to Col. Sherwood, of Auburn, N. Y., (and we can well bear testimony to the worth of this bull, Symmetry, as we have a cow of his get, and a very superior animal she is,) Col. Hampton, of S. C., Messrs. Ferguson and Wetenhall, of C. W., and Thomas Hillhouse, of Watervleit, N. Y. We might continue this account, as Mr. Vail has three more imported cows, sent him by Mr. Bates, all of which possess strains of the Duchess blood, but we deem it unnecessary.

We learn by the agricultural papers, that the *whole* of the late Mr. Bates' herd are to be sold the coming spring or summer; and consequently the *Duchess tribe* which Mr. Bates has always retained *exclusively in his possession,* will be dispersed in the hands of many. From the enterprise which has thus far characterized Mr. Vail, as a breeder, we sincerely hope and expect he will not let this opportunity pass without the introduction of one or more animals of the *full* Duchess blood, into his herd. He has already done much to bring the *Bates Stock* into deserved reputation in this country, and the benefit which its introduction has conferred upon other Durhams, which have received only a single cross of this strain of blood, is immense. We hope he will now introduce the Duchess blood *without alloy;* and we confidently expect the day would not be far distant, when the price of the American Short-horns, will compare favorably with the high sales of this stock in England. S. P. CHAPMAN.—*Clockville, Mad. Co., N. Y., Dec.* 1849.

JEFFERSON COUNTY AGRICULTURAL FAIR.

We make the following extract from an address delivered before the Jefferson County Agricultural Association at its late Fair, held at Watertown, in this State, by Moses Eames, Esq., President.

> "The Ladies, too, with a laudable spirit of competition and taste, have contributed handsomely to rendered this an occasion of delightful entertainment. Their presence and cheering smiles, always agreeable, are none the less so when they undertake to illustrate by their deeds the generous impulses of their hearts. The wives and daughters of the farmers of Jefferson county are able to show by their works that they have a common interest and sympathy with their husbands and fathers. It is their pride to exhibit in every room of our dwellings the productions of their industry, taste and skill. Cheerful, free, intelligent and happy at home, they have learned happily to blend all those qualities with industry and frugality, and wisely to accommodate themselves to the circumstances with which they are surrounded. The garden, the door-yard, the kitchen, the parlor, all present favorable indications of the character, intelligence and good taste of our Ladies. *More* than this I *need* not say: *less,* in justice to myself and them, I *could* not."



DESIGN FOR A SUBURBAN RESIDENCE.

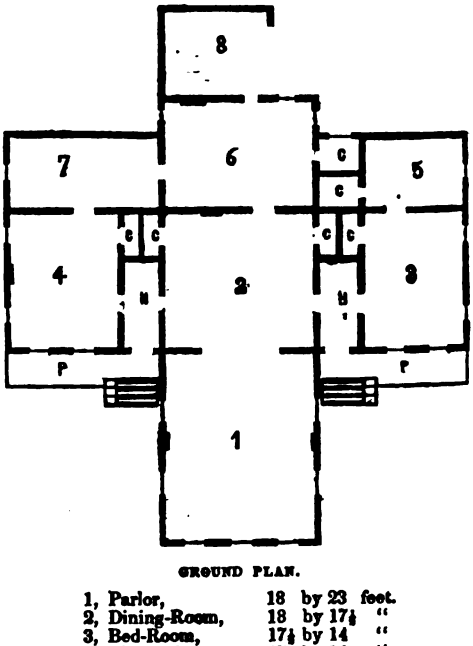
This beautiful cottage was designed by W. M. McConnell, of this city, for James Harris, the well known Landscape Painter, who intends to erect it on his ground within about one mile of the city. Many who have seen the design say that they know of no plan, combining so much of beauty and convenience, at so small an expense. Careful estimates and propositions for the erection of the building have been made, from which we think we may safely say the building could be erected here for $1,500. Every one, however, must be aware that the cost will vary in different places, governed, of course, by the cost of materials and labor. The only safe plan would be for each one having any idea of using this design, to obtain an estimate by some competent person in his own locality. Architects are apt to make their estimates too low, and serious embarrassment to the person building, is often the consequence.

In this estimate, it was to be built of brick, and painted. The parlor, it will be seen, is large, and connected with the dining room by sliding doors, as shown on ground plan. The finish of these two rooms is intended to be the same; the dome in the dining room, as shown in perspective, is intended to start from the level of the ceiling, to be made plain and plastered, and then painted in imitation of pannels. There is no window in the dining room, and this dome furnishes all necessary light. The height of ceilings is twelve feet in the clear, with a cornice to correspond with that on the outside.

Two verandas, one in front of the sitting room and one in front of the family bed-room, will be seen on perspective. They are to be built light. The cornice on these will be the same as on the house, but lighter. The cornice on the house will have a projection of two feet, bracketed, as seen in drawing.

This cottage may be built of wood in localities where a wooden building can be erected at a much less expense than brick or stone.

In the arrangement of the ground plan, changes might be made to suit the convenience or fancy, though Mr. H. thinks the plan as good as can be devised. At our suggestion the kitchen was enlarged from the original plan. We think most architects err in making small and contracted kitchens. The kitchen is the business room, and we think should be the most commodious one in the house.



GROUND PLAN.

1, Parlor,	18 by 23	feet.
2, Dining-Room,	18 by 17½	"
3, Bed-Room,	17½ by 14	"
4, Sitting-Room,	17½ by 14	"
5, Bed-Room,	12 by 14	"
6, Kitchen,	18 by 13	"
7, Bed-Room,	12 by 14	"
8, Wood-Shed,	14 by 12	"
p, Porch.	c, Closet	

h, Hall.

NOTES FOR THE MONTH

THE late opening of the Chemung R. R. to the head of Seneca Lake, and the Ithaca and Susquehanna R. R. from Oswego to Ithaca; has already opened a winter trade between western New York and the city of New York, through the Erie Rail Road, which gives an earnest of that great change in trade, which must favorably increase, change and modify, both the rural and domestic products of Western N. York.

The beautifully rural village of Aurora, on Cayuga Lake, has been of late, as if by magic, suddenly transformed into a busy animated mart or depot, from whence, fruit, pigs, and poultry, are daily shipped by steam to Ithaca, thenco by Rail Road to Piermont and New York. On the Seneca Lake still greater changes have taken place. From Geneva two Steam Boats now start daily for the head of the Lake, loaded with passengers and light freight, up and back; freight barges are towed daily, loaded with bales of cotton and raw materials, for our Factories, as well as other articles down; and pork, whiskey, flour, &c., up. It is supposed that this very cheap winter communication with New York, will have the effect to lesson the fall purchases of our Manufacturers in Western New York, as well as to modify, change and increase the productions of our farmers generally. Fruit, pigs, poultry, &c., which heretofore have not been considered as paying products to the farmer, beyond a limited home or barter-trade; begin now to be a great element in this winter trade with our great Commercial Metropolis.

The late accounts from California seem to indicate that a reaction has commenced there in earnest. Labor is becoming cheaper, tho Diggings are submerged in water or covered with snow; provisions are enormously dear, and vegetables are not; to those diseases which ordinarily afflict humanity on land, is added that loathsome scourge of the briny deop, scurvy. The presence of this malady alone, proclaims the sterility of the gold region to be a fixed fact; as in every other situation in the same latitude, not a desert; wild uncultivated nature has ever been found rich and beautiful in anti scorbutic productions. A practical farmer here just returned from the gold region, avers that the best portions of Upper California may possibly produce peas and grass, without irrigation, but that Indian corn and vegetables, must perish, either from cold and wet at first, or drought afterwards. He went over the famed plantation of Capt. SUTTER, seeing it only as a barren sandy plain, with little evidence of its ever having been cultivated; an arid waste which no verdure quickened; but perhaps some allowance is to be made for the distempered imagination of a man longing after the leeks and onions of Seneca County.

Sixty-six subscribers to the Genesee Farmer, for 1850, have already been registered at our Post Office; yet what is this number compared to the thousands of farmers who sell their wheat and corn here? While many of our best farmers aver that they would not be without an Agricultural paper for ten times its cost, such is the benefit they think they receive from the theory and practice of others. Yet strange as it may seem, the number of those who have learned all without the aid of a book, is legion; and the variety which belongs to the moon tilling genera, cannot but be truly interesting to him who loves darkness rather than light.

From the late recommendations of Gov. Fish, and the President of the United States, it would seem, that Agriculture is now about to come in for a share of that public bounty, which has been heretofore almost limited to the Fisherman and the Mannfacturer. But let every farmer put his own shoulder to the wheel without waiting for Hercules. In speaking of the education of farmers sons the veteran Editor of the Ohio Cultivator says: "However unwelcome the truth may appear, it is a fact which cannot be blinded, that the want of *education* or a proper developement of *mind* on the part of the mass of our farmers, is the *great* obstacle in the way of all improvoments; and only by the removal of this barrier, can we hope to see the profession of Agriculture rise to that position and dignity which it should ever occupy in the land.

Let farmers no longer be content to see the school master abroad for the benefit of the more pretending classes; but let them at once take him home to their own school district, and domesticate him there, in the place of that itinerant low priced nonentity called a teacher, whose usurpation of the title is only a burlesque or a satire, upon the intelligence of those who employ him. S.W.—*Waterloo, N. Y., Jan.*, 1850.

PRODUCTS OF WAYNE COUNTY.

ADDRESS delivered before the Wayne County Agricultural Society, at its Annual Exhibition, in Palmyra, N. Y., 1849, by R. G. PARDEE, Esq.

Mr. PARDEE's address has given us much satisfaction. He has carefully brought out many useful facts in regard to his own county, as will be seen by tho following extracts:

> We further learn that the offices in our county cleared, during the last year, within 8 per cent. as many potatoes as the entire state west of us, via the Erie Canal, including Rochester, Buffalo, &c., and within less than one per cent. as much barley, as the whole state west on the Erie Canal.
>
> We also learn what was to me an astonishing fact, that the offices in Wayne county, during the year 1848, cleared more dried fruit, by more than 30 per cent, than the entire state west of us, to and including Buffalo; and also, more by 15 per cent. than the entire state east of us. The offices west cleared 538, 000 lbs.—those east 610,000lbs,—while Lyons and Palmyra cleared 708,000 lbs., or more than 30, 000 bushels.
>
> This is indeed a noble tribute to the industry of the daughters of Wayne county; (for the women and children do the most of this work;) for who can calculate the enormous amount of labor, in drying 150,000 bushels of apples, peaches and plums—this being the requisite amount to make the 30, 000 bushels when dried.
>
> For several years past, the Palmyra office has cleared about 60, 000 barrels of fine grafted apples per annum, or 150,000 bushels more of fruit; and if Lyons, Newark and Clyde together, send off as much more, (as they doubtless do from 50 to 100 per cent. more,) we then have the aggregate of 400,000 to 500,000 bushels of fruit, in a green and dried state, exported annually.
>
> We may deliberately add, that the superiority of Wayne County Apples is as well known and appreciated in the New York market, as are the Princess Bay Oysters, or Orange county Butter. And if any of you wish to know whether our county produces peaches, pears and plums, unsurpassed in size and delicious flavor, even by the warm climes of the more sunny south; let me ask you to visit such magnificent and well cultivated fruit yards as Mr. Theron G. Yeoman's of Walworth, Messrs. J. Thomas and Wm. R. Smith's of Macedon, or Mr. J. G. Dickinson's of Lyons; not to mention many others around us; and you will be entirely satisfied.
>
> And yet the capacity of Wayne county to produce fine fruits, has hardly begun to be tested; for at no previous day has there ever been enkindled a tithe of the enthusiasm to cultivate choice fruits, which is now prevading every mansion and hamlet within our borders, and infects almost every man who is so fortunate as to possess a portion of our luxuriant soil, sufficiently large to plant a tree, or nurture a hill of strawberries.

Horticultural Department.

EDITED BY P. BARRY.

FACTS TO BE REMEMBERED IN PRUNING.

There are important differences in the modes of growth and bearing of the various cultivated fruit trees, subjected to pruning and training, that every cultivator should study carefully. Every species is governed by laws no less regular and observable in this respect, than in their periods of blossoming and maturation; and these laws should be taken into strict account in pruning and every other process intended to modify the growth and productiveness of bearing trees. Most cultivators are too apt to overlook these important points, and hence the principles of pruning are badly understood. Immediate effects alone are too frequently looked to. If the head of a tree be too dense, or certain branches too long, a certain number, or a certain length, is cut away without considering the results that must follow; and it is this unskilful and undiscriminating pruning, as well as a total neglect of it, that produces such vast numbers of unsightly and unprofitable trees as now cumber the ground of a large portion of our orchards and gardens. At present we can give but a few hints on the subject, by way of calling attention to these points

The *Apple, Pear,* and *Quince* are all similar in their mode of bearing. The fruit buds are usually produced on spurs or short stout shoots along the sides of branches of two or more years' growth, and these shoots or spurs continue to renew their fruit buds and bear for several years in succession, if they enjoy the advantages of light and air, and are not deprived of a sufficient supply of nutriment by rapid growing portions of the tree above them. Occasionally we see fruit buds formed on the ends of shoots of one season's growth, but this is rare, except in particular varieties. The Quince is usually borne on the ends of the spurs.

The *Peach, Apricot,* and *Nectarine* bear their fruit almost exclusively on shoots of the previous year; the fruit buds forming during the first season's growth.

The necessity of keeping up a constant annual supply of young wood on all parts of the tree, is therefore obvious. The same shoots bear only once — occasionally fruit spurs are produced from other branches, but these are comparatively feeble; not to be relied on.

The *Plum* and *Cherry* are quite similar in their modes of bearing. The shoots of last year, 1849, will, during 1850, become furnished with fruit buds that will produce fruit in 1851. A few buds towards the extremities of the shoots are usually developed into new shoots, while all the buds below are transformed into fruit buds. It sometimes happens when Cherry trees are not growing vigorously, that the buds at the base of the shoots become fruit buds the first year, and bear the next.

The *Morello Cherry* and a few others of its class, are exceptions to this rule, and they bear like the peach on wood of the previous year, the fruit buds being formed on the lower parts of the shoots of the current year.

Gooseberries and *Currants* produce their fruit like the Cherry and Plum. The fruit buds forming on shoots the second year, and bearing fruit the third and afterwards.

The *Grape Vine* and *Raspberry* are similar in mode of bearing, and differ from all the others. The fruit is produced on shoots of the current year's growth, starting from wood of the previous year. Young shoots from other parts of the vine do not produce fruit, but will the year following produce fruit bearing wood.

ANSWERS TO CORRESPONDENTS.

"M.," Geneva. It would give us great pleasure to give your letter a place in our columns as affording a very happy illustration of the way in which a love of gardening is growing up amongst us, and its practice and principles attracting attention and study; but the limited space we are allowed does not admit, as you will see, of anything but short and purely practical articles. We have to deny ourselves many a pleasure for this reason. We shall at all times feel obliged for an account of your success and mode of operation.

J. Fraser, Mecklenburg, N. Y. Your communication, which appears in this number, was mislaid, owing to some changes in the office, this is the reason it has not been acknowledged.

Profits in Pears.—In the fall of 1848, Mr. John Washburn, of Plymouth, bought two dwarf pear trees, (on quince stocks,) at $1.25 each. He set them that fall, and in less than a year from planting the trees, he took a dozen pears from them, and exhibited them at the annual show of the Massachusetts Horticultural Society, for which he received a premium of $6, and he sold the pears for $3 — making a dividend of $9 on the small investment of only $2.50. The pleasure and reputation of successful cultivation will pay ten times the trouble. The variety was the Louise Bon de Jersey.—*New England Farmer.*

Hon. Marshall P. Wilder.—This distinguished Horticulturist and Pomologist has recently been elected President of the Massachusetts Senate, and we are sure he will do honor to that honorable office. We wish tnat more of our Senators and Representatives in the State and National Legislatures were such as he, if they were, we would soon see our Government do something worthy of it, for Agriculture and Horticulture. State and National Gardens would be more then *talked of.*

Winter is the best time to look around your orchard and garden to see how matters stand—do what you can, and lay out your work for the spring.

PRUNING THE PEACH TREE.

DOWNING's "Fruit and Fruit Trees of America" was the first American work treating of the culture of fruit trees, that awoke any considerable degree of attention to the pruning of the peach. The *shortening in* system so long and so successfully practiced in France, and indeed in all other European countries where the peach is cultivated well, was explained and strongly commended to the attention of American cultivators. Since that work first made its appearance five years have elapsed, and no doubt many have by its influence adopted or carried into practice, to some extent, this system; for every now and again we see in the Horticultural journals, accounts of its beneficial results. Still the culture of the peach tree through the country generally is exceedingly defective, and stands in greater need of reform than does any other branch of tree culture. But the active and penetrating spirit that now exists can hardly fail to seize upon this neglected point, and give it proper attention. We have now before us several requests for information in regard to it, and we take this occasion, (the pruning season being at hand,) to present a few remarks on the subject. THOMAS' "American Fruit Culturist" being referred to by some of our correspondents, we will quote the article in that work as a *text:*

> "No fruit trees need a more regular and constant pruning than the peach, and none more frequently meets with total neglect. The young shoots, to live and flourish, need a very full exposure to sun and air. But young peach trees, if left to grow in their own way, become covered with a dense profusion of leaves. These shade the interior, and as a necessary consequence, the central shoots gradually perish, and leave the bare limbs. As the tree advances in growth, these become long, naked branches—with tufts of leaves only at their extreme ends, (fig. 1.)—These extremities are loaded with an over-crop of fruit, diminished in flavor by crowding, and often breaking the peach tree under their lever-like weight.—Trees wholly neglected in pruning, usually become by this process, of little value, after the lapse of some years.
>
> To avoid this unfavorable result, the *shortening-in* mode of pruning has been very successfully adopted, which consists in yearly cutting back the extremities, so as to counteract the spread of the limbs, and to lessen the weight of foliage.
>
> The most easy, uniform, and certain rule to follow, in adopting this system of pruning, is to cut off, early in spring or in winter, one-third to one-half of all the shoots of the previous summer's growth. This thins the crop of fruit, and greatly reduces the amount of leaves; and while the fruit is lessened in number, the amount is not diminished, and the flavor is immeasurably improved. If this pruning is regularly and annually performed, the head of the tree will be preserved in an even, handsome, and compact shape, (fig. 2,) and in a healthy and vigorous condition; and it will become rarely necessary to shorten and thin out the limbs by cutting back the larger side-branches.
>
> The pruning may be performed with a hedge or long-handled shears, or with nearly equal convenience by means of a light standing ladder and a common pruning knife.
>
> Any cultivator who may doubt the value of shortening-in the peach, need only to try the experiment for a few successive years, on a tree standing side by side with one unpruned, to become fully convinced of its eminent advantages."

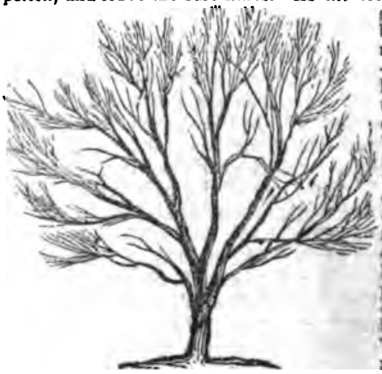


Fig. 1.

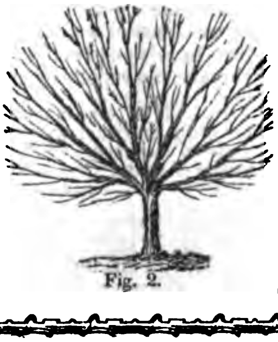


Fig. 2.

Now we consider it very important that cultivators who prune their peach trees should have a correct idea of the evil or defect, that their pruning is intended to remedy. The inexperienced would be very likely after reading the article we have quoted to attribute it to "*dense profusion of leaves,*" and as a consequence, would endeavor to reduce their quantity; but we consider this a misapprehension, for the actual result of pruning or *shortening-in*, is to maintain a profusion of leaves, by keeping all parts of the tree furnished with young growing and bearing shoots. Without pruning, the trees become denuded of young shoots and foliage on all but the extreme ends of the branches.

We conceive the true cause to be the great tendency of the sap in the peach tree, (a tendency to be observed in all trees, but particularly so in the peach,) to ascend to the points of the last year's shoots. Here the buds are most active, and the sap passes by all the lower and less fully developed buds to them, leaving the others to die off gradually for want of support. Thus the tree goes on year after year, when left to itself, the upper buds only, of the last year's shoots, being developed into new shoots, until all the leaves and fruit of the tree are confined to a few inches of the ends of the branches.

If any proof were wanted that a profusion of leaves is not the cause, we need only refer to the case of espalier peach trees, trained on a wall or trellis, where every portion of the tree is fully exposed to the light, and where shading of leaves is entirely out of the question. These, just as much as the common standard tree, become bare on the lower parts if not pruned, although their confined situation does not offer such great facilities for the flow of the sap. We have seen neglected espalier peach trees, covering 20 or 30 feet of a wall, and not over a foot on the end of each branch bearing leaves or fruit. It was not the shade of foliage but the uninterrupted flow of sap to the points. But if we take a young peach tree 2 years old and transplant it, leaving all its branches on, and although these are so few that they cannot possibly produce leaves enough to be any detriment to the interior or lower branches, still we see the buds on the extremities of the limbs alone grow and those below them perish.

Having thus considered the cause of the evil we complain of, the remedy becomes quite obvious, and with ordinary judgment may be applied with correctness and success.

Every one who has planted a young peach tree, say one year from the bud, must have observed that if the top buds are sound and healthy, they will grow while all the lower ones on the branches, if any, or on the stem, will die out, but if the tree or the branches are cut off, even to the lowest bud at the base, it will grow. We see the same results when the top buds are winter killed or the top is broken off; the buds that would otherwise have remained dor-

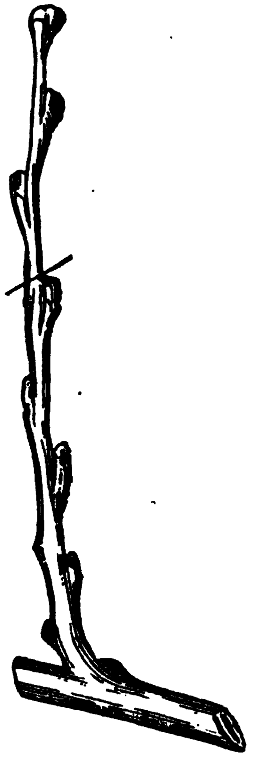


Fig. 3.

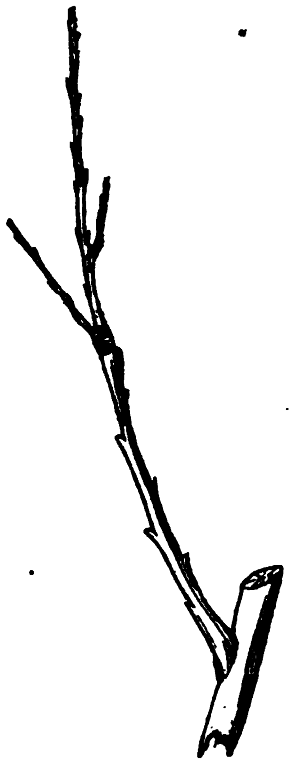


Fig. 4.

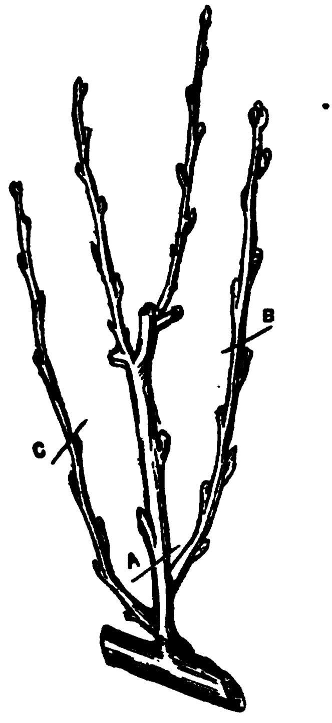


Fig. 5.

mant by the sap passing them to those at the summit, are made to develope themselves into shoots or branches. Hence it is that we apply *shortening-in.*

Let us take a young last year's shoot of the peach, (fig. 3,) furnished with both fruit and wood buds, for illustration. Now if this shoot is left entire, the buds at the point only will produce shoots, and all the rest will be a naked space. But we cut at the cross line, and thus induce the wood buds on the lower parts to develope and make young, vigorous shoots for next season, and at the same time we reduce the quantity of fruit, which is quite essential, not only to the health of the tree, but the perfection of the crop. It is on the same principle that a gardener, by repeatedly pinching off the ends of young shoots, will grow a geranium into a low bushy mass of branches and leaves, covering entirely the pot in which it grows, while if left to itself the same plant would have most likely formed a tall, branchless, weak, straggling plant, requiring the support of a stake. It is on the same principle too, of directing the sap from one channel into another by pruning and training, that we are enabled to make pyramidal pear trees, and to produce all the other forms that necessity or fancy has suggested. If the sap had not been thrown into the wood buds at the base of the shoot, (fig. 3,) we should have had a production the following year like fig. 4; but by *shortening-in* we produce something like fig. 5. Now the difference between cutting back a shoot and leaving it uncut makes just the difference we see between these two figures.

But *shortening-in* is not all that is required. If we continue to shorten the young shoots without cutting out some of the old, we will get a tree by and by like a brush that the light can not penetrate. In such productions as figure 5, the old shoot A, should be cut out at the cross line at the base, and we have the shoots B. and C., for next year's bearing, which are *shortened-in.** Then any of the main branches that take the lead of the other should be shortened, in order to maintain symmetry in the form of the head.

Mr. Thomas says: "The most easy, uniform and certain rule to follow, is to cut off, early in spring or winter, one-third to one-half of all the shoots of the previous summer's growth." This is not to be taken literally. He means of course that each of last year's shoots is to be cut back one-half to one-third its length. In the main this may be right, but some discrimination must be used. Vigorous shoots might be cut back one-third, while a weak, slender one, if placed where we want a good bearing shoot for next year, should be cut back to within a couple of buds of its base, so in proportion with branches of intermediate vigor. The cut should always be made at a wood bud or a triple bud, one of which is a wood bud. In this and similar latitudes, the latter end of February and beginning of March is the best time.

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* It should be borne in mind that the Peach bears only on wood of the previous season's growth; and the same shoot only bears once, hence all the parts of the tree that become destitute of young wood, become at the same time barren.

* * *

Amalgamation.—A Texas paper tells a story of a man who by engrafting the black on the white grape succeeded in making "black, white and speckled," grow on the same *bunch.*

"PEAR BLIGHT."

As it was from my own experience that I wrote of "Pear Blight," I have been not a little curious to see how trees in other regions were effected. At Buffalo, in Bryant's Nursery, numerous Pear trees are growing, which have been suffered to remain 30 years, without any digging round them, which stand embargoed in turf, that have not been affected at all by "blight." At Batavia and Canandaigua, as well as at Rochester, there are many old trees, which have a slow but sure growth, treated as I proposed, and free of blight. "F. P. R.'s," of Sweden, have done pretty well, as he says, for 25 years, without blighting. I have but one word to say about the Pear tree and blight. I believe that if trees were planted on dry and good soil, and suffered to remain without other culture than a dressing of leached ashes, or bone dust, in the fall, that they will not blight. Mind and cover the roots well, and if the turf grows around them, do not disturb it, whatever the "Young Digger" says to the contrary. Let me extract from Mr. Downing's Book on Fruits, about the Pear tree.

First—he mentions Pear trees, "known as now living near 400 years; and some bearing 120 bushels a year;"—and says, "that the Pear succeeds so well as an open standard and requires so little care and pruning; less indeed in the latter respect than any other fruit tree that training is seldom thought of, except in gardens of the curious or skilful. Pear trees in a bearing state, where the growth is no longer luxuriant, should have every autumn a moderate top dressing of manure to keep them in good condition." (Had F. P. R. done this, perhaps he would not have had his trees *blight.)* "This, as it promotes *steady* and *regular growth*, is far preferable to occasional heavy manuring, which, as will be presently shown, has a tendency to induce the worst form of blight to which the tree is subject."

"The most successful remedies for this disastrous blight, as is evident, are chiefly *preventive ones*. The principal means of escaping the danger really lies in always studiously avoiding a damp soil for the fruit tree."

"A rich, dry soil, is, on the whole, the best, because there the tree will make a good growth in time to fully ripen its wood and will not likely make a second growth."

"It is in accordance with this that many persons have remarked that those Pear trees growing in common meadow land, were free from blight in seasons when those in rich garden soils were continually suffering from it."

Throughout, Mr. Downing recommends slow growth —dwarfing, to ensure it.—J. H. Watts.

DWARF STOCKS—INQUIRIES

Mr. Barry—*Dear Sir:* I wish to make some inquiries through your valuable paper, respecting *stocks* for dwarfing trees. The utility of Dwarf Fruit Trees is every day becoming more and more evident, not only for the amateur, but for those whose circumstances do not permit their owning much land, who can, if they have the taste, enjoy the production of some of the finest varieties of fruit in the narrow limits of a garden. And the taste will not be slow of formation when it is found that a few delicious pears can be grown on the same ground occupied by a sour currant or worthless gooseberry; in short it is doing for pomology what cheap publications are for literature — widely disseminating valuable things at small expense. The very successful dwarfing of the Pear, and more recently of the Apple and Cherry, leaves a deficiency of the Plum, Apricot and Peach, which it is desirable to see supplied. The necessity of dwarfing the latter does not seem to exist, yet how pleasing to the eye of any lover of beauty would be the sight of a mere shrub bending beneath clusters of the Red Rareripe or Melocoton. But the Plum and Apricot might more readily, as dwarfs, be protected from the curculio, their worst enemy in many parts, by which a great advantage would be gained. I have long wished to find a fitting dwarf for the plum, and was much pleased by the intelligence recently communicated by Mr. Rivers, that he had succeeded by employing the English Sloe or Blackthorn. This shrub, I presume, is not found in this country, but would it be likely to flourish on our soils? And is it reasonable to suppose that if the plum grows upon it, the Apricot and Peach would be likely to take? Is it known whether our native wild Plum, upon which the improved kinds grow readily, and vigorously the first year, proves a dwarf or not? Native stocks seem better adapted to the soil and climate, where they are found growing, than those brought from a distance, and it is not improbable that among our many wild fruit trees, some might be found valuable for dwarfing upon. For instance, the American Crab is said to furnish a good stock for the Apple. Has it been satisfactorily tested? Has the Service Tree, *(Pyrus Terminalis,)* ever been tried as a stock for the Apple, to which genus it belongs? Again, among our many varieties of Wild Cherry, is there none that will make a good stock for the improved sorts? The common Choke-Cherry is a dwarf, but grafts upon it, though taking readily, prove so short-lived that they seldom exist through the first season.

Should the Sloe of Mr. Rivers prove valuable, as I hope it will, I trust our nurserymen will not be tardy in importing it. J. Fraser.—*Mecklenburg, Tomp. Co., N. Y., Dec.*, 1849.

The Apricot and the Peach may both be dwarfed on Plum stocks, and perhaps some of our native species would answer that purpose well, whether on a Peach or Plum stock, the tree to be kept in a low and compact bushy form, will require to branch near the ground, and be regularly shortened in every year. We apprehend the *Sloe*, besides being difficult to work upon, will not make trees of much value; but as we have no such experience, we may be in error. It is certainly worthy of a trial.

ACKNOWLEDGEMENTS.

We are indebted to R. G. Pardee, Esq., of Palmyra, N. Y., for a box of the finest *Catawba Grapes*, now (January,) as fresh as when gathered; also for a paper of *Waite's Queen of Dwarf Peas*. "They are very productive and curious, as they grow only 12 to 15 inches high, but very stout, with heavy dark foliage." We know these to be an excellent *Dwarf Pea*. Also, a couple of ears of a very early and excellent sweet corn, supposed to be the *Early Burlington*.

To M. A. Norton, Esq., of Victor, for a box of a new apple, *Norton's Purple*, which promises to be excellent, the specimens were too ripe before reaching us, but we hope to see it in perfection next season.

Ladies' Department.

JANE AND JOHN, OF FARMERSVILLE.

BY JAMES MAPLETON.

Jane Grove was a pretty girl, or at least, most of the young folks used to think so in Farmersville, where she was "born and brought up;" with the exception of a jealous rival or two, who would acknowledge the fact with a *but*. Jane, however, unlike many *pretty* girls, was a girl of *pretty* good sense. She was not spoiled by flattery, yet it was nothing but her good sense that prevented it.

Jane had many admirers among the young men of the neighborhood, though all, for some cause or other, seemed to be kept at rather a respectful distance — too much so, for the liking of some of them it was very currently reported, I recollect at the time, not to mention some little experience I had on the subject.

At last, by some unforseen and altogether unaccountable circumstance or other, John Elmly seemed to get the start of all the rest. He came out clear ahead, and no one even thought that he was trying at all. John was only a farmer's son. He was working a small farm — some thought he rented it, others that he worked it on shares, and still others, that he had bought it — though the prospect was that he never would pay for it. Hovever, we all concluded that he had no ambition above raising corn and popatoes, while the rest of us where aiming to become clerks and merchants, and lawyers and statesmen. We unanimously acknowledged that John was a pretty good sort of a boy, and nobody's fool at that. And after a while we made up our minds that the only reason John was more successful than the rest of us, was that none of the rest of us had ever *tried*.

The old maxim that "the course of true love never runs smooth," did not prove true in this case, for before we expected it, or before any of the rest of us could have "raised the wind" to build a decent hen-coop, John had a nice little cottage built, and him and Jane were declared "*one*." None of us exactly liked his taste in building his cottage,— though we thought it good enough,— and strangers expressed their delight at its neat and pretty appearance.

Jane no sooner got "at home" in the cottage than she commenced her work. Every day she might be seen early in the morning, and in the evening, in her garden — making flower beds, and planting seed. She did n't stand with her gloves on, and direct a gardener, but went at it herself, with the spade and the hoe. To-be-sure, John did the hardest of the work, but Jane was the gardener.

"That is just as I expected — I knew he would make a slave of her"— said one. "He will have her out in the field digging potatoes soon," said another.

But, Jane's sparkling eyes, that had smitten us in other days, spoke of any thing but slavery — her rosy cheek and joyous laugh, told not of unwilling toil.

"She will soon be burned as brown as a squaw," said Miss Spruce, who could n't go into a room with the curtains up, without a sun-bonnet on.

Though Jane might be a little tanned, yet it was far better than that sallow, billious look, that calls for the frequent application of chalks and powders.

"I should like to know what kind of a housekeeper she is," said Miss Jealous. "I guess she isn't very neat — she spends too much of her time out doors, to keep things tidy in the house."

It is true Jane was n't so very neat as to make her husband pull off his boots and leave them under the fence as soon as he comes in sight of the house, but the old ladies who called on Jane said she was an "excellent house-keeper, and she and her cottage was a pattern for all the young folks of the place."

"Well, I do n't believe," said Miss Snifflin, "that she ever cooks any thing. She spends so much of her time fixing posies, and pulling up weeds, that I guess there is rather poor fare at the cottage. She never was much of a cook."

But I can assert from experience that a dinner at the cottage was no fast; for, after I got reconciled to the matter a little, I often called, and had good reason to know. Indeed, the elderly ladies of the place often took tea with Jane, and I have it on their authority, that Jane made "a good cup of tea," and always had "two kinds of cake on the table"— which I believe is considered the *ne plus ultra*.

But these stories soon began to prove old,— envy and jealousy wore itself out — and now I believe it is acknowledged that John has the prettiest wife — Jane the best husband — and both together, the best farm, the neatest garden, the prettiest cottage, and the prettiest children in all Farmersville.

Let ladies avoid the young man who does not behave with respect and honor towards his mother, and who is not courteous and kind to his own sisters.

OUR HOMESTEAD.

Our old brown homestead reared its walls,
From the wayside dust aloof,
Where the apple boughs could almost cast
Their fruitage on its roof:
And the cherry-tree so near it grew,
That when awake I've lain,
In the lonesome nights I've heard the limbs,
As they creaked against the pane:
And those orchard trees, oh, those orchard trees!
I've seen my little brothers rocked
In their tops by the summer breeze.

The sweet-brier under the window sill,
Which the early birds made glad,
And the damask rose by the garden fence,
Were all the flowers we had.
I've looked at many a flower since then,
Exotics rich and rare,
That to other eyes were lovelier,
But not to me so fair:
For those roses bright, oh, those roses bright!
I have twined them with my sister's locks,
That are laid in the dust from sight!

We had a well, a deep old well,
Where the spring was never dry,
And the cool drops down from the mossy stones
Were falling constantly:
And there never was water half so sweet
As that in my little cup,
Drawn up to the curb by the rude old sweep,
Which my father's hand set up;
And that deep old well, oh, that deep old well!
I remember yet the plashing sound
Of the bucket as it fell.

Our homestead had an ample hearth,
Where at night we loved to meet;
There my mother's voice was always sweet;
And there I've sat on my fathers's knee,
And watched his thoughtful brow,
With my childish hand in his raven hair—
That hair is silver now!
But that broad hearth's light, oh, that broad hearth's light!
And my father's look, and my mother's smile,
They are in my heart to-night.

Youths' Department.

AGRICULTURE.

Agriculture is the art of cultivating the soil. It is the aim of all men to make their business, no matter what it may be, as profitable as they can. The object of the farmer in cultivating the soil is to raise the *largest crop* at the *smallest cost.* When the merchant, or speculator, or lawyer, increases his profits, it is often done at his neighbor's expense. But the farmer may increase his profits, and not only himself, but his neighbors, and his country be the better for it.

The farmer should not only aim to make large profits *for the present,* but this should be done *without injuring his land.* You would not think a carpenter made much of a speculation who had spoiled a set of tools worth $50 in making a barn-door, although perhaps he made the door very quick, and got twice what the job was worth. The banker who boasted of the large interest his money yielded, while at the same time his capital was continually depreciating, would be considered a strange financier. A man would be thought a downright idiot who would work his team extremely hard, without giving them sufficient food,—for the purpose of getting a week or two of profitable labor from them—until they became useless from over-work and poor fare. He would lose more in the injury done his team than the entire value of their labor. The wisest plan would be to find out what kind of work, and how much the team could endure, without injury, how much food, and what kind was necessary to keep them in a good working condition, and act accordingly. The farmer shows as little sense, who, just to raise a crop or two, without much cost or labor, injures his land as much or more than the value of the crops raised. He should find out what his land is best suited for, and what *food* it will furnish his crop, and what is the best course to keep it in a "*good working condition.*" To do this he must know something of the nature of the crops he raises, of the land on which they grow, and of the manure or food of plants which he applies to the land. A man who makes up his mind to build a house or a barn, will first examine the materials he has on hand, (if he has any,) and procure those suitable for the building which he intends to erect. Why should the farmer act less wisely when he undertakes to make a crop of wheat, or oats, or potatoes. We shall attempt to give the youth a little light on the subject.

1st—Of the nature of crops.—All vegetable substances consist of two parts, called the *organic,* and the other the *inorganic.* You have often seen a pile of wood, perhaps a log-heap, set on fire and burned. The *wood* was very heavy, but the greater part is burned away, and the *ash* that is left is light. The greater part which burns away is the *organic* part, and the small part that remains—the ash—the *inorganic* part. A stick of wood so heavy as to require a strong man to lift it, could be carried by a school-boy in his sachel after the *organic* part is burnt away. The *organic* part is more than *nine* pounds out of every *ten.*

Perhaps some of our young readers are ready to inquire by this time "*what that organic part is that burns away?*" The *organic* part of plants consists of *carbon, hydrogen, oxogen* and *nitrogen. Carbon* is a solid substance, wood-charcoal, black-lead, and the diamond, are varieties of carbon.

Hydrogen is a gas or air, and the lightest of all known substances. It burns in the air, but in it a candle will not burn, nor an animal live. You can make this gas by putting some iron filings in a tumbler, and pouring over them a small quantity of sulphuric acid, diluted with twice its bulk of water, and covering the glass for a few minutes. This is the gas with which baloons are filled.

Oxygen is also a kind of air, generally called gas. It is heavier than hydrogen, indeed, it is heavier than the air we breathe. It forms one-fifth of common air. A candle will burn in it with great brilliancy. The properties of oxygen may be shown in the following manner: take equal parts of oxide of copper and chlorate of potash, and rub them together in a mortar, then put the mixture into a common oil flask, and place it over a lamp, as seen in the figure, (fig. 1,) when a piece of charcoal or sulphur introduced at the end of a wire will burn brilliantly.

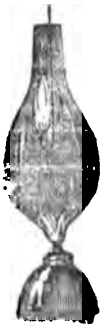


Fig. 1.

Nitrogen is also a kind of air differing from the other two. It will not burn, and a lighted taper will not burn in it. It is a little lighter than common air, of which it forms four-fifths of the bulk. The easiest method of obtaining this gas is by mixing together a quantity of sal ammonia with half its weight of salt-petre, both in fine powder, and heating them in a retort over a lamp. The gas is collected over water, as shown in figure 2.

All of these four elementary bodies, are not, however, found in all vegetable substances. The greater number contain only *oxygen, hydrogen* and *carbon.* Starch, sugar, the fibre of wood, fats, and many other substances contain no nitrogen.

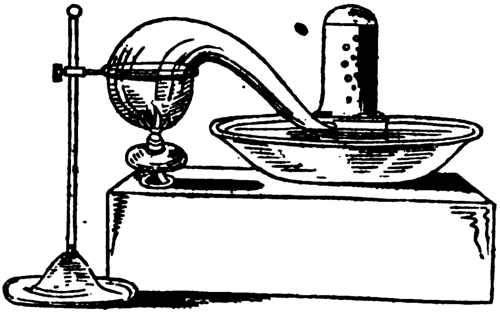


Fig. 2.

In our next number we shall speak of the *inorganic* part of plants.

A Word to Boys.—Some one has said:—"Boys, did you ever think that this great world, with all its wealth and woe, with all its mines and mountains, its oceans, seas and rivers, with all its shipping, its steamboats, railroads, and magnetic telegraphs, with all its millions of men, and all the science and progress of ages, will soon be given over to the hands of the boys of the present age—boys—like you assembled in school-rooms, or playing without them, on both sides the Atlantic? Believe it, and look abroad upon your inheritance, and get ready to enter upon its possession."

Editor's Table.

The Genesee Farmer commenced the year with the most flattering prospects, and thus far our anticipations are more than realized. The old subscribers are fast renewing their subscriptions, and we are receiving thousands of new subscribers from places where the Farmer never before circulated. Our friends who are exerting themselves to extend our circulation will accept our thanks—more than this, our pledge to spare neither labor or means to make the Farmer—a welcome and valuable monthly visitor — the FIRST — the BEST.

Life Subscribers.—We have received many letters asking us to consider the writers life subscribers for the Farmer. May it be long before Death shall erase their names from our books, and deprive the world of the benefit of their influence and example. **Benj. Hodge**, of Buffalo, writes: "I cannot afford to lose a single number of your paper, and you may consider me a subscriber for life."

One way to do it.—We received a letter from a friend, a short time since, giving an account of the formation of an "*Agricultural, Horticultural. and Mechanical Association*," in a certain town in this State. The writer says; "By our *Constitution*, the necessary qualification for a person to become a member for *one year*, is to pay the club price of *three shillings*, and receive and read the *Genesee Farmer* for 1850."

Young Farmers.—The youth are beginning to turn their attention to agriculture, with their characteristic spirit and enthusiasm. We should be pleased to publish some of the letters we have received from our young friends during the past month, but space forbids. One in Chautauque Co., N. Y., 14 years of age, writes us that his father is a lawyer, but has consented that he should be a farmer. He forwarded his subscription to the Farmer for two years. We hope he has received, and will study carefully, the book we sent him. It will lay the right foundation for scientific and successful farming. We refer all such to our YOUTH'S DEPARTMENT.

Our Correspondents must bear with us a little, if they do not receive that attention to which they are entitled as early as could be wished. We are in the daily receipt of from forty to fifty letters, some of them requiring written answers; and many asking information as to the price of stock, &c., to obtain which, we have to write to those having them in their possession, which in some cases causes considerable delay. We shall do all justice, and as speedily as possible.

Glass Water Pipe.—Many object to the use of lead pipes as conductors of water, from the impurities they impart to the water. W. T. **De Goyler**, of Schenectady, has invented a *glass pipe*, which is highly spoken of where used. It has been in use over one year at Union College, Schenectady. **Rapalje & Briggs**, of the Genesee Seed Store, in this city, are the exclusive agents for the counties of Ontario, Livingston, Monroe, Genesee, Erie, Wayne and Orleans, in this State.

Cauliflower in Winter.—We were presented by J. P. **Fogg**, Esq., of this city, with a beautiful head of Cauliflower for our New-Year's dinner. Mr. F. took from his garden about one hundred that had not headed, and placed them in his cellar, where they headed beautifully. By this means a good supply of this delicious vegetable can be obtained for winter use. Though this plan is not new to experienced gardeners, we presume it will be new and valuable to many of our readers.

Canada Thistles.—We have a host of communications on the best means of destroying the Canada Thistle. We shall attend to them in our next. We think the thistles may consider themselves "used up."

We are indebted to **Wm. P. Fogg**, of the Patent Office, Washington, for valuable translations from the foreign Agricultural Journals. These translations will be a valuable feature in our paper the present year.

B. P. **Johnson**, Esq., of Albany, will accept our thanks for a most beautiful pamphlet copy of **Johnston's** address, at the late State Fair.

Wagener Apple.—It will be seen by Mr. **Watts'** advertisement that he has scions of this celebrated apple for sale.

Postage of the Farmer.—The Farmer is subject to *newspaper postage* only. A few postmasters, particularly in the West, have occasionally given our subscribers trouble, by attempting to collect the same rates of postage as on pamphlets. To save our friends any further annoyance and set the matter forever at rest, we have taken the pains to lay the subject before the Post Office Department. The following is the very satisfactory decision.

Post Office Department,
Appointment Office, Dec. 13, 1849.

Sir:—In reply to your's of this date, I have to inform you that the "Genesee Farmer" published at Rochester, New York, is regarded as a newspaper, and should be rated with one cent postage when carried in the mails over one hundred miles or any distance within the State; and if carried over one hundred miles, and out of the State in which they are mailed, one and a half cents postage.

I have the honor to be, Very respectfully &c.,
FITZ HENRY WARREN,
Second Assistant Post Master General.

Dr. **Daniel Lee**, Washington, D. C.

State Agricultural Society.—The following are the Officers appointed for the ensuing year, at the annual meeting, held on the 17th inst., at Albany:

President.—E. P. **Prentice**, Albany.

Vice Presidents.—Ambrose Stevens, N. York; Lewis G Morris, Westchester; Anthony Van Bergen, Greene; Z. C. Platt, Clinton; J. B. Burnett, Onondaga; E. C. Frost, Chemung; [illegible] Phelps, Ontario; Nelson Van Ness, Chautauque.

Cor. Secretary.—B. P. Johnson.

Rec. Secretary.—J. McD. McIntyre.

Treasurer.—Luther Tucker.

Executive Committee.—B. B. Kirtland, J. J. Viele, H. Wendell, A. Thompson, Henry Wager.

The next Fair is to be held at Albany. The Society unanimously adopted a resolution, requesting Congress to establish a National Agricultural Bureau.

Burritt's Christian Citizen.—We refer our readers to the advertisement of this paper. Mr. **Burritt**, the learned blacksmith, is too well and too favorably known to need our praise. He has given up making horse shoes, and is endeavoring to forge "swords into plow shares, and spears into pruning hooks." May success attend his benevolent labors until the arts of civilization shall supplant the barbarous arts of other days—peace and plenty make the hearts of millions rejoice — man no longer oppress his brother man — and the "nations learn war no more."

Holden's Dollar Magazine.—We are indebted to the Agent of this city, D. M. **Dewey**, for the January number of this valuable monthly. It contains an interesting sketch of the life and death of **Charles W. Holden**, the late proprietor and the projector of the Magazine — a beautiful tribute to his memory. The portrait accompanying the sketch is a very fair likeness. Mr. H. left New York for California on the 17th of January, and died on the 30th of June. Like many others, who left their friends and homes with high anticipations and golden dreams, he breathed his last under the shade of a tree, on the shores of the Sacramento.

New Papers.—*Moore's Rural New Yorker* is a neat and valuable weekly paper just commenced in this city, devoted to Agriculture, Horticulture, the Mechanic Arts, Education, &c., by D. D. T. **Moore**.

The *Family Visitor*, of Cleveland, Ohio, is another new weekly. The principal editor is Prof. J. P. **Kirtland**, one of the most scientific men, and perhaps the best Horticulturist of the West.

The Agricultural Press.—The *Albany Cultivator* for January comes to us with its usual amount of valuable matter. Accompanying it is a *pictorial number*, interesting at least to the juveniles.

The Plough, the Loom, and the Anvil, by the veteran **Skinner**, bids fair to sustain and increase its high reputation.

The *American Agriculturist*, the *Prairie Farmer*, the *American Farmer*, the *Wisconsin Farmer*, the *New England Farmer*, and the other Agricultural monthlies have been received. We wish them the success they merit.

Mr. T. B. **Garrs**, of Mayville, Chautauque County, N. Y., sends us an account of a native Cow, that was *dried off* in June last and fatted on grass exclusively, and slaughtered on the 10th of December, 1849. The neat weight of which was, beef, hide, and tallow 863 lbs., and divides, beef 628, hide 70, and tallow, tried and refined, 165. Considering the light weight of beef with the heavy weight of tallow, we think it cannot be beaten.

The Last Hours of Rev. Henry Colman.—We have been told within a day or so, that the late Mr. Colman, after having visited Ireland, on his second trip to Europe, only had strength left him to reach Islington, England, where he died. He had been charged with a private embassy to facilitate emigration from Ireland of the better class of her citizens, who might wish to settle on our shores, and there contracted a fever called the ship or typhus fever, which terminated his life. His reason left him, but his mind seemed exercised in deep commiseration for the *poor Irish* whom he had but just left in their misery. Those who knew the late Mr. C., either personally or as a profound writer upon agriculture, and as one of the warmest friends of the farmer, will hold his memory dear. Mr. C. edited the Genesee Farmer for several years, and was an occasional contributor since 1832. He dissolved his connection with the Farmer to enter on his European Tour.

Flying.— It does seem as if man would never rest satisfied while any thing remained unaccomplished. He traverses the seas with almost the same certainty and safety as he does the land, crossing the Atlantic, and arriving at the destined port within an hour or two of the appointed time. He travels from Country to Country, and from State to State with little short of lightning speed, and is carried a hundred miles in less time than a few years ago he went ten. He sends his messages from one end of the Union to the other with the rapidity of thought. and yet he is unsatisfied—something yet remains undone. He cannot yet rival the Eagle in her flight to the skies. But he is on her track. The screaching of the steam whistle may yet warn the Eagle to "*look out for the Engine.*" The Scientific American describes a machine now building in New York by a Mr. Pennington.

Industrial Show of Nations.—At the suggestion of Prince Albert, who is doing much for the cause of improvement in England, and the exhibition of whose fine stock we have before noticed, and under the patronage of his "better half," a grand exhibition of the industrial products of all nations is to be held in London. in 1851. The exhibition will probably be the most splendid affair of the kind ever witnessed in the world. It is proposed to raise £100,000 for the general expenses. The prizes are to be one money purse of £2,000. four of £1,000 each, and several costly medals, which are to be conferred by the Queen in person.

Clover and Timothy Seed.—Large lots of Clover Seed are purchased in Ohio, and come down the Lake in the fall, and we understand some five or six thousand bushels are now held in Rochester and this vicinity. The crop in this and the adjoining Counties was fair. Prices must necessarily be nearly, if not quite as low as last year; say from $4 to $5. This market is mostly supplied with *Timothy Seed* from Canada. The market is very quiet, and will probably remain so, until the opening of Lake navigation. Prices range from $1 25 to $2 25, according to quality.

Our friend, A. Huidekoper, Esq., Meadville, Pa., remits payment for ten copies of the Farmer, and adds—

"Our harvests during the past year were abundant in every thing but fruit. The spring promised well, but much of the fruit subsequently dropped off and that which matured was less fair. and not equal in size to its usual growth. It is also said not to keep so well this winter as in former years. The Belmot or Gate apple has begun to bear with us in this region, for a couple of seasons, and seems to sustain the reputation which Downing and Dr. Kirtland give it of being one of the best of all the early winter apples."

A Small Farm in the South Wanted.—One of our constant readers, who is "a poor man with a large family," wishes to get a small farm cheap in the northern or western part of Virginia. We should like to have this poor man, weo regularly pays his four shillings for the Farmer, locate in some neighborhood where the *rich* farmers and planters are too *poor* to take an agricultural paper, and too *ignorant* to feel the want of one. The following tells its own story:

Sir: Will you allow me the privilege, of enquiring of some of your readers. if it is probable I could get a few acres, say from 10 to 16; 3 to 5 acres cleared, the rest in wood; at the price of from $3 to $5 per acre, on a public road, (not a cross-road.) I want to get it, if I can, in the northern or western part of Virginia; or somewhere on the Alleghany river, or some 20 or 30 miles from Wheeling, on the Ohio. If some one of your intelligent readers or correspondents can give me any idea where I can get what I have mentioned, they and you, sir, will be doing a great service to a poor man with a large family. who is looking out for a small independent home.

I am, Sir. your obedient servant, and constant reader,
Rochester, Jan'y 17, 1850. G. C.

Sweet Potatoes.—We have received several letters asking where sweet potatoes for seed can be obtained early enough for planting in this section. J. P. Fogg, of the Rochester Seed Store, will furnish them the coming spring to all who wish. Orders may be sent to our office.

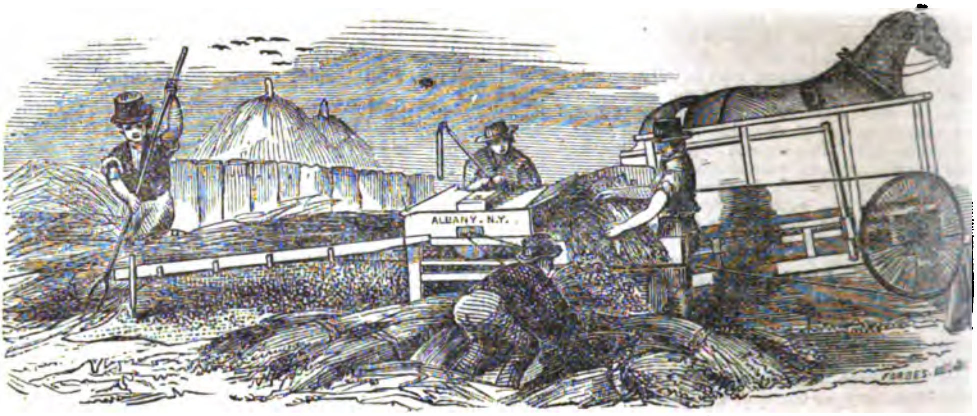
Grand Banquet to the Potato.—That highly respected vegetable, the Potato, being now, it is hoped throughly re-established in health, it was determined by a few leading members of the Vegetable Kingdom to offer a banquet to the worthy and convalescent root on his happy recovery. The arrangements for the dinner were on a scale of great liberality, and the guests included all the principal vegetables. The invitations had been carried out by an efficient corps of Scarlet Runners, and the Onion occupied the chair. He was supported on his right by the head of the Asparagus family, while Salad occupied a bowl at the other end of the table, and was dressed in his usual manner. The Potato, though just out of his bed, was looking remarkably well, and wore his jacket, there being nothing to mark his recent illness, except perhaps a little apparent blackness round one of his eyes. After the cloth had been removed—

The Onion got up to propose a toast, "the Potato, their much respected guest," (Immense cheering.) He, the Onion, has known the Potato from infancy; and though they had not always been associated in life, they had frequently met at the same table. They had sometimes braved together the same broils, and had found themselves often together in such a stew (he alluded to the Irish stew) as had brought them, for the time being, into an alliance of the very closest kind. He the Onion, was delighted to see the Potato restored to his place in society, for he, the Onion, could say, without flattery, that society had endeavored to supply the place of the Potato in vain. (Hear, hear.) They had heard of Rice having been suggested to take the place of his honorable friend, but the suggestion was really ridiculous. *Risum teneatis, amici*, was all that he, the Onion, had to say to that. (Loud laughter, in which all but the Melon joined.) He the Onion, would not detain them longer, but would conclude by proposing health, long life, and prosperity to the Potato.

The toast was received with enthusiasm by all but the Cucumber: whose coolness seemed to excite disgust among his brother vegetables. The Onion had, in fact, affected many of those present to tears, and the Celery, who sat next to the Horseradish, hung down his head in an agony of sensibility. When the cheering had partially subsided, the Potato rose, but that was only a signal for renewed enthusiasm; and it was some minutes before silence was restored. At length the Potato proceeded nearly as follows;

"Friends and fellow-vegetables—It is with difficulty I express the feeling with which I have come here-to-day. Having suffered for the last three or four years from a grievous disease which seemed to threaten me with total dissolution, it is with intense satisfaction I find myself once more among you in the vigor of health. (Cheers.) I should be indeed insensible to kindness were I to forget the anxious inquiries that have been made as to my state of health by those who have held me in esteem, and sometimes in a steam. (A laugh, in which all but the Melon joined.) I cannot boast of a long line of ancestors. I did not, like some of you come in with the Conqueror, but I came in the train of civilization, amidst the memorable luggage of Sir Walter Raleigh, in company with my right honorable friend the Tobacco, who is not now present, but who often helps the philosopher to take a bird's eye view of some of the finest subjects of reflection. (Immense cheering, and a nod of ascent from Turnip Top.) Though I may be a fóriegner, I may justly say that I have taken root in the soil, and, though I may not have the grace of the Cucumber, who seemes to have come here in no enviable frame. (Loud cheers.) I believe I have done as much good as any living vegetable: for though almost always at the rich man's table, I am seldom absent from the poor man's humble board." (Loud applause.) "But," continued the Potato, "let me not get flowery, or mealy-mouthed, for there is something objectionable in each extreme. I have undergone many vicissitudes in the course of my existence. I have been served up, aye, and served out (a smile) in all sorts of ways. I have been roasted by some; I have been basted by others; and I have had my jacket rudely torn off my back by many who knew not the treatment I deserved. But this meeting my friends, repays me for all. Excuse me if my eyes are watery. (Sensation.) I am not very thin-skinned; but I feel deeply penetrated by your kindness this day."

The Potato resumed his seat amid tremendous cheering, which lasted for a considerable time.—*Punch.*



PATENT PORTABLE RAIL-ROAD HORSE POWER AND THRESHING MACHINE.

THE above celebrated Machines have, during the past year been more extensively sold and introduced than any year previous; and, what is most gratifying to the manufacturers, they give most unqualified satisfaction. Upwards of three hundred and fifty setts mostly for two horses, have been sold the past season without supplying the demand for them.

With our present increased facilities for their manufacture, and some additional improvement in their construction and materials, they are now offered to the public with increased confidence in their superiority over all other kinds of threshing machines for the farmers own use and economy.

Their durability is no longer a question, they having been in use for the last seven or eight years without any perceptible wear or expense, further than the oil and a new plank flooring for the horses every twenty or thirty thousand bushels of grain, which any farmer or mechanic can replace at his leisure.

Some of the advantages of the above machines to the farmer are, their *portability* and *compactness*, admitting of their use inside of barns during all weather, thereby protecting both man and beast. requiring no more room than is necessary for threshing with the flail. The whole may be operated by the force usually about the farm without calling together the whole neighborhood, thereby enabling the farmer to thresh his own grain. and during such time or weather as best suits his own convenience, or take advantage of markets, which last is often no small item in a farmer's receipts.

The One Horse Power requires, with a change of horses once or twice a day, but three men to thresh from seventy-five to one hundred bushels wheat or rye, or double that amount of oats or buckwheat, per day; and with the Double Power, without a change of the horses and with four or five men, double that amount can be done in the same time.

The prices will be about the same as last season, viz:

For the One Horse Power, Threshing Machine and Separator, Bands, &c.,.......................... $120
For the Two Horse do. do. do. do. do. do. 150

Portable Saw-Mills for sawing wood, slitting boards, &c., for fencing. and a very useful machine about a farm or work shop. are furnished in complete running order. and adapted to the Horse Powers. for $35.

All articles are warranted to be of the best materials and workmanship, and to come up to the above descriptions, or the purchase money shall be refunded on the machinery being returned within three months, provided the purchaser is not pleased or satisfied with it.

It has been exhibited the last three years at the State Fair and nearly half the County Fairs in this State. and extensively introduced in the States of Ohio, Indiana, Illinois, and Wisconsin. also to some extent in the Canadas. For further particulars, discriptions, terms, &c., &c.. see Catalogue of Albany Agricultural Warehouse, furnished gratis on application or by mail—or the Agricultural Papers for the past three or four years. Address

H. L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

N. B. May also be had of Jno. Mayher & Co., No. 197 Water street, New York, (who are the only authorized agents for the sale in that city,) at the manufacturers' home prices.

Take Notice.

THREE Months Extra Pay and One Hundred and Sixty Acres of Land will be procured for all who enlisted for five years, or during the War of 1812, and for, all including Volunteers who served in Mexico, and for the heirs of all who have died in the service.

Information will be given to relatives, Free of Charge, by writing to

G. F. LEWIS,
Detroit, Michigan
Postage Paid.

Those who do not know what became of their friends, write when and where they joined the army.

Spring Grains.

150 bushels *Club Wheat*, a choice variety, certain of maturity and yields well—a larger and lighter colored berry than the Black Sea.

500 bushels *Black Sea Wheat*. This has long been known and is highly praised on account of its never failing from weevil, rust or anything which so often destroys wheat of different kinds.

200 bushels Spring Rye.

500 bushels Timothy Seed, mostly reaped

A large supply of Large Clover, White Clover, with a full assortment of Garden Seeds, for sale at the lowest rates at the Albany Agricultural Warehouse and Seed Store, No. 369 and 371 Broadway, Albany. H. L. EMERY

Seneca Lake Highland Nurseries,

CATHARINE, CHEMUNG COUNTY, N. Y.

WITH Nursery and Standard Trees, this *establishment* covers forty acres. Fruit trees of the best varieties. at reduced prices, wholesale or retail, of all the kinds suitable to this climate. Ornamental Trees and Shrubs of all the most rare kinds both Deciduous and Evergreen; Green House *Plants*; in short a Nursery in all its parts. Trees can be furnished of the new and popular "Wagener" apple, also the Dause or Hawley.

Trees carefully packed and forwarded by public conveyance to any part of the Union. Being located within two miles of the Chemung Rail Road, used by the New York and Erie Company their agents certificate will be forwarded by mail on their delivery. Packages will reach the New York and Erie Road at Elmira 15 miles south of this, and the Buffalo and Albany route at Geneva 45 north, which makes it a very desirable location for sending trees by public conveyance. Neither the Pear or Plum Blight or Peach Yellows, are known at this location.

The Horticultural Advertiser, containing a priced Catalogue furnished gratis to all post-paid applicants.

January, 1850. E. C. FROST

Fruit Scions.

I AM now ready to supply Scions for grafting for 1850 which can be sent by *mail* or Express; and in all cases they have been cut from orchards familiar to me, and by persons in whom I can confide.

APPLES.

Northern Spy,	Norton's Melon.
Early Joe,	Canada Red.
Fameuse,	Ribstone Pippin.
Yellow Bellflower,	Esopus Spitsenburgh.
Pomme Gris.	

When possible, shall send specimens of the fruit.

Price One Dollar per hundred. Post-paid applicants shall have prompt attention. Address

JAMES H. WATTS,
Rochester, Monroe Co., N. Y.

January 1, 1850.

P. S. Also a few Scions of the "Wagener" apple, which the State Society awarded a premium for of $5

Wanted,

AT THE OLD ROCHESTER NURSERY. a few thousand two years old seedling Apple, Pear, and Quince trees. Post paid offers, stating quantity. quality. and price, will receive attention. S. MOULSON, 36 Front St., Rochester

---

For Sale.

TWO Short Horned Bull Calves, one year old in April next. In color one is red. the other red with some white, both descended from the Bull "Yorkshireman," bred by the late Thos Bates, Esq. *Letters of inquiry, post-paid*, will be attended to.

Auburn, Jan. 11, 1850. [2-2t] J. M. SHERWOOD.

REVOLUTION IN PERIODICAL

LITERATURE HOLDEN'S ILLUSTRATD DOLLAR MAGAZINE. Since the death of the projector of this popular Magazine, the property has passed into the hands of the subscriber, who will continue to publish it at the Publication Office, No. 100 NASSAU ST., New-York.

The New Volume,

To be commenced on the First of January 1850, will comprise many important improvements, which, is beleived, will render the Magazine one of the best Periodicals published in the country, as it certainly is the cheapest. Among these improvements will be new and beautiful type, fine calendered paper, a higher order of illustrations than those heretofore given, and contributions from some of the ablest writers in America. It is the aim of the Proprietor to publish a Popular Magazine, adapted to the wants of all classes of reading-people in the Republic, which shall be both instructive and amusing; and free alike from the grossness which characterizes much of the cheap literature of the day, and from the vapidity of the so-called "Ladies Magazines." The illustrations will consist of Original Drawings engraved on wood by the best artists;

PORTRAITS OF REMARKABLE PERSONS AND VIEWS OF REMARKABLE PLACES,

illustrated by pen and pencil. A strict revision will be exercised that no improper article, or word, shall ever be admitted, so that it may be safely taken by persons of the utmost refinement, and read at the fireside for the amusement or instruction of the family circle.

The Review department of the magazine will contain brief critical notices of all the new publications of the day, and will form a complete chronicle of current literature.

From the business and literary connxions already established, the best assistance that the country can afford will be secured for completing the plans of the Publisher, and nothing will be wanting that ample pecuniary resources and watchful industry can obtain to make the Magazine the leading

LITERARY PERIODICAL OF AMERICA.

The extremely low rate at which it is published precludes the hope of profit, except from a circulation greater than that which any literay periodical has ever yet attained; but, with the new avenues daily opening for the circulation of works of merit; the constantly increasing pouplation of the country; the cheapness of the Magazine, and the superiority of its literary and artistic attractions to those of any other work now issued; the proprietor fearlessly engages in an enterprise which will be sure to benefit the public if it should not enrich himself.

The Magazine will be under the Editorial charge and supervision of CHARLES F. BRIGGS, who has been connected with it from the beginning.

The "Pulpit Portraits," a series of Biographical Sketches, accompanied by well engraved Portaits of Eminent Divines of the American Churches, which have formed a conspicuous feature of "HOLDEN," will be continued in the succeeding Volumes of the Magazine, and will render it of peculiar value to religious people of every denomination.

THE FIFTH VOLUME

will commence on the First of January next, but will be issued on the 15th of December. Each number will consist of 64 PAGES, AND NUMEROUS ENGRAVINGS. The Terms are

ONE DOLLAR A YEAR

in Advance; the Magazine will be plainly and carefully directed and sent by mail AT THE RISK OF THE SUBSCRIBER. As each number will be sterotyped, missing or lost numbers can at any time be supplied when ordered, but will be deducted from the time for which payment has been received. Remittances may be sent at the risk of the Proprietor, provided a description of the bills are taken, and enclosed in presence of the Postmaster as evidence of the fact.

Five copies will be furnished for $4, and 20 copies for $15. Nos. for the year 1848, excepting the month of January, will be furnished at 4 cents each, and Bound Volumes in cloth with gilt edge, from July to December inclusive, at $1 each.

Newspaper publishers who will insert this Prospectus four times, and notice the Magazine monthly, will receive a Bound Volume for the year 1849, and an exchange for the coming year; they are requested to send only those papers in which the Prospectus and notice appear. Letters must be addressed to "Holden's Dollar Magazine, No. 109 Nassau st., New York," and POST PAID in all cases.

Jan. 1850, WM. H DIETZ. Proprietor.

Engraving.

E. BALDWIN, would respectfully inform his friends and the public generally that he has located himself in Rochester, and is prepared to execute all descriptions of Engraving, Seals, Labills, Machinery, Visiting and Wedding Cards, Letters, Book and Cloth stamps, Views of Buildings or Animals, in short every thing in his line will be done neatly and reasonably. He will also keep on hand an assortment of

JUVENILE BOOKS,

such as Young Toy Books, Dream Books, Primmers, &c., illustrated with fine wood cuts, plain and colored. Letter and fancy envelops, motto wafers, Prints, Lead pencils, &c.,&c., which he will sell for cash at New-York prices. *All* those wishing anything in his line will please call at No 15 third floor Reynolds Arcade, Rochester N. Y.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

CONTAINING directions for the propagation and culture of Fruit Trees, in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties, cultivated in the United States. By J. J. Thomas. One volume 12 mo. of over 400 pages. With 300 accurate Illustrations.—Price $ 1,00

NOTICES OF THE PRESS,

"Among all the writers on fruits, we do not know of one who is Mr. Thomas's superior, if his equal, in condensing important matter. He gets right at the pith of the thing—he gives you that which you wish to know at once; stripped of all useless talk and twattle. No man has a keener eye for the best ways of doing things. Hence we always look into his writings with the assurance that we shall find something new, or some improvement on the old; and we are seldom disappointed.

This book is no exception. It is *full*. There is no vacant space in it. It is like a fresh egg—all good, and packed to the shell-full."—*Prarie Farmer.*

"We predict for it a very rapid sale. It should be in the hands of every fruit grower, and especially every nurseryman. It is a very cheap book for its price."—*Ohio Cultivator.*

"An equally valuable, but cheaper book than Downing's, was wanted by the great mass. Just such a work has Mr. Thomas given us. We consider it an invaluable addition to our agricultural libraries."—*Wool Grower.*

"It is a most valuable work to all engaged in the culture of Fruit Trees."—*Utica Herald*

"In the volume before us, we have the results of the author's experience and observation continued with untiring perseverance for many years, in language at once concise and perspicuous."—*Albaany Cultivtor*

"The vast number of varieties which have been propagated, renders such a book peculiarly necessary at the present time, serving to point out the good from the bad, and being just what the great mass of the community now want in reducing the list of sorts by retaining the best."—*Ib.*

"We can safely say, with confidence, to our readers, if you need a book to instruct you in the modes of growing trees, &c., from the first start, the system of pruning, &c., &c., you will find the American Fruit Culturist an extremely valuable work. * * The million who purchase it, will find matter adapted to their wants, superior to any work as yet published."—*Cleveland Herald.*

February 1, 1850. [2-3t.]

ELIHU BURRITT'S NEWSPAPER.

THE CHRISTIAN CITIZEN.

ELIHU BURRITT, Proprietor.

EDITORS—Elihu Burritt and Thomas Drew, Jr.

Regular Foreign Correspondents—Edmund Fry, London; J. B. Syme, Edinburgh; Ernest Lacan, Paris.

THE SEVENTH VOLUME of this large and popular Family Newspaper commenced on the first of January, 1850.—TERMS, ONE DOLLAR AND FIFTY CENTS per annum, invariably in advance. Four copies for Five Dollars.

The Citizen is the organ of no party or sect, but expresses freely the sentiments of its editors upon all the great reformatory questions of the day. Sympathizing with all the great enterprizes of Christian benevolence, it speaks against all war in the spirit of peace. It speaks for the slave, as a brother bound; and for the abolition of all institutions and customs which do not respect the image of God and a human brother, in every man, of whatever clime, color or condition of humanity. All orders should be *post paid*, and directed to either of the editors, at Worcester, Mass.

To Seedsmen and Dealers.

The subscribers are prepared to import on very favorable terms, from the most distinguished and reliable Seed Establishments in London or on the continent of Europe, seeds in quantities, and of a quality in which *the utmost dependence may be placed.* The seeds will be forwarded in the original packages and original invoices furnished. Persons wishing to import, may thus avail themselves of the experience of the subscribers, by the payment of a small commission. JAS. M. THORBURN. & Co.

15. John Street, New York.

☞Red Top—Orchard—Ray and other grasses—White Dutch Clover—Lucerne etc. etc., low by the quantity.

Nov. 1 1849.

THE AMERICAN POULTRY YARD: Comprising the Origin History, and Description of the Different Breeds of Domestic Poultry, with Complete Directions for their Breeding, Crossing, Rearing, Fattening, and Preparation for Market; including Specific Directions for Caponizing Fowls, and for the Treatment of the Principal Diseases to which they are subject. Drawn from Authentic Sources and Personal Observation. Illustrated by Numerous Engravings. By D. J. Browne, Author of the Sylva Americana. With an Appendix, embracing the Comparative Merits of the Various Breeds of Fowls, by Samuel Allen.

C. M. SAXTON, Publisher, 121 Fulton st.

Price $1,00. For sale at this Office, and by all the Booksellers in the United States. [1-2t.]

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To Fruit Growers and Nurserymen.

SPRING OF 1850.

THE SUBSCRIBERS invite the attention of tree purchasers to their stock now offered for sale. By large importations from Europe, and an extensive scale of propagation in their own grounds, they are enabled to offer one of the most extensive and complete assortments, and on the most liberal conditions.

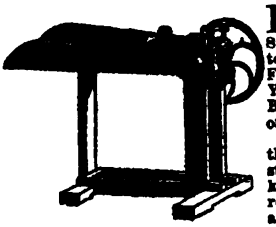
The well known health, hardiness, and vigor of the trees grown here, and the undivided and scrupulous attention given to every department by the proprietors in person, offer great inducements to purchasers.

Standard Fruit Trees.
Pyramidal and Dwarf Fruit Trees.
Gooseberries, Currants, Strawberries, &c.
Ornamental Trees and Shrubs.
Roses, Dahlias, &c.
Hedge Plants, (including large quantities of Buckthorn and Osage Orange.)
Stocks for Standard and Dwarf Trees.

And all other Nursery Articles, besides a large collection of GREENHOUSE, BORDER and BEDDING PLANTS. Wholesale priced lists sent gratis to all post-paid applications. A separate Catalogue for 1850, of Roses, Dahlias, and other new and rare articles will be also furnished.

ELLWANGER & BARRY.
Mount Hope Garden & Nurseries, Rochester, N. Y.
February 1st, 1850.

Staw Cutters.



RUGGLES NOURSE & MASON'S Celebrated Hay, Straw and Corn-Stalk Cutter, to which was awarded the FIRST PREMIUM at the New York State Agricultural Fair, Buffalo, on the 7th, 8th and 9th of September, 1848.

It is now generally conceded that for cutting hay, straw and stalks., these Machines having knives set upon the circumference of a cylinder, and cutting against a roller of raw hide, are the best yet introduced—the work is easily and rapidly performed by simply turning a crank, and the machine is a perfect self-feeder without any extra and complicated fixture to perform that part of the work.

A full supply of 14 different sizes, varying in price from $10 to $28, consantly on hand at the "Genesee Seed Store and Agricultural Warehouse," Irving Block, Buffalo street, Rochester.

We have also on hand a good supply of six other kinds, which make our assortment the best of any to be found in the State.

RAPALJE & BRIGGS.

New Patent Churn.

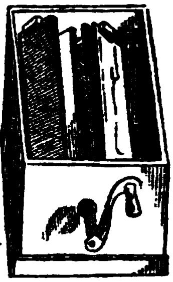


Fig.1

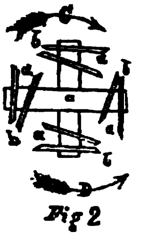


Fig 2

UNTIL the Churn above represented came to our notice our assortment has been made up of the KENDALL'S CYLINDER—THE THERMOMETER, and THE COMMON DASH CHURN, believing them equal, if not superior, to any of the multitude of new things recently offered throurh the country, called churns.

Our course has ever been to deal in or recommend only such articles to the farming public as we have known from our long experience, in selling and manufacturing, to be well worthy of the recommendations given them through our advertisements.

The above cut represents the only new churn which, to our mind has any advantages over the others above named, among the great number offered. Although comparatively a new article it has during the past season been thoroughly tested by a great number of dairymen in Chenango and Orange Counties and with unprecedented success. Its construction is simple, having four pairs of broad floats or blades, all confined together, as represented in our end view at (fig. 2.) which, when turned in the direction of the arrow C., causes the cream to be compressed and pass between the blades from A. to P. This process being continued until the butter gathers into lumps too large to pass through at A., then the motion to be reversed in direction of arrow D. the whole mass is thrown by the action of the angle of the bent blade, to the centre, where the butter is gathered rapidly into one solid roll and the separation becomes complete. There being no rod running through the churn, the floats may be instantly removed, and the butter taken out.

This form of float moves easily through the cream, and at the same time is more effective in its operation than any other we have seen.

The process of collecting and compressing of the particles together, is not probably excelled by any previous inventions.

A silver medal was awarded to this churn at the American Institute, in New York, in October last, for the best churn offered among almost an endless variety of kinds in the same exhibition.

They are offered for sale at about the same prices as KENDALL'S CYLINDER CHURN, according to sizes.

They are warranted to give satisfaction, or they may be returned and the purchase money refunded

Albany Agricultural Warehouse, No. 369 and 371 Broadway, Albany. HORACE L. EMERY

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A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.
P. BARRY, Conductor of Horticultural Department.

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DANIEL LEE,
Rochester, New York.

December, 1849.

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GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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SUB-SOIL PLOWING.

MUCH as has been said in favor of deep plowing and sub-soiling the earth, the subject has hardly begun to excite that general attenion among farmers which it ought to command. There is scarcely one acre in a thousand on which a deep, mellow, and productive soil can be found, without breaking the *pan*, or compact mass that lies just below the surface of the ground. So far as the warm atmosphere can freely penetrate, with its oxygen, carbonic acid, ammonia, and vapors, chemical action will be extended, roots will grow and *rot*, and a fertile soil be gradually developed. The benefits of deep tillage do not all accrue immediately after the operation is executed. The formation of a deep, mellow, and rich soil, by the most skilful use of natural elements and agencies, is the work of many years. To attain this result, one needs not only mineral and organic matter in due proportions in the surface of the earth, but both minerals and mold of a particular kind, and in a particular condition of solubility and combination.

After a man has deliberately made up his mind that it is better to own and cultivate good land than poor land, and that there is such a thing as improving the natural fertility of the earth, his first thoughts should be directed to the point, whether any field, or part of a field, needs draining. Stagnant water within three feet of the surface will rise by capillary attraction to a degree fatal to that warmth and friability of the soil, without which its highest productiveness can never be reached. All under-draining should be into ditches at least three feet deep. But there are millions of acres of tilled land that need no artificial drainage, which will be greatly improved by deep, or sub-soil plowing. The advantages of this mode of culture are the more speedy and decisive, as the manuring, liming, and ashing of the land accompany the breaking up of the inert mass of clay or gravel below the surface soil. It is not pretended that this dead earth will instantly become fertile. Admitting that the comminuted clay really contains salts of lime, potash, soda, magnesia, and soluble silica, it takes *time* to prepare these fertilizers for the nutrition of cereal plants. Salts of iron and alumina, such as copperas and alum, are apt to exist in excess, and require a little caustic lime to decompose them and form gypsum, or sulphate of lime. Plants that contain considerable nitrogen, such as peas and clover, and of course yield a liberal per centage of the alkali called ammonia, when they decay, are exceedingly favorable to the deepening of a thin soil, in connection with deep plowing. Every farmer should understand the difference in the economical value of vegetable mold. Suppose one has 100 lbs. of cabbage, exclusive of water, in one heap, and a like weight of pine saw-dust in another. Which will form 50 lbs. of the better mold? The solid organized matter is alike in each mass; and why should there be any difference in the economical value of 100 lbs. of cabbage or 100 lbs. of saw-dust, either for feeding cows and children, or feeding wheat and corn plants?

In principle, there is no difference in feeding animals, from man down to a coral or sponge, and feeding plants. All living beings need food adapted to their peculiar natural wants. Hence, place a baby oyster in saline water that contains not a particle of lime, and its stony covering must cease to grow. Nature is incapable of creating the first atom of lime, or of any other element consumed to form any plant or animal. A deep, fertile soil, is one that abounds in the raw material for making bread, milk, and meat, in an available form, to the depth of twelve or twenty-four inches, as the case may be. Is there anything unreasonable in saying that such a soil possesses a very great intrinsic value? A cubic foot of such land in the valley of the Genesee contains, on an average, over a pound of common lime. This gives over 43,000 pounds of this mineral to an acre, within twelve inches of the surface of the ground. The writer is credibly informed by one of the best farmers in the State of Delaware, that a million bushels of burnt lime are now annually used for improving the soil in that small State. One farmer pays a $1000 a year for *guano*.

In the last number of the Working Farmer we find statements in regard to sub-soiling, from which we extract the following. JAMES CARNAHAN, President of Princeton College, states the results of an "unintentional" experiment he made in 1848, in sub-soiling.

"I wished," says he, "to sub-soil a lot in soil with a hard pan, and as I had only one team, I hired another to turn over the sod preceding the sub-soil plow. He came and worked one day, but did not return the next. As the time for planting was approaching, I directed my farmer to go on and plow in the common way as deep as he could. He did so. The following day the other plowman returned, worked a day (sub-soiling) and then was absent.

"The result was, the lot was plowed alternately with the common plow and the sub-soil. The whole lot manured and worked in the same way, except the sub-soiling of some parts and some not. The month of August was dry; the corn in the sub-soiled suffered very little; that on the part not-subsoiled suffered very much.

"When the corn was gathered, we could distinguish the very row where the sub-soiling was commenced and ended — *the ears were more numerous and of a larger size.* I did not measure the corn nor the ground, but the difference was so obvious to the sight, that no one could doubt the superiority of the corn or the ground sub-soiled.

"This year the whole of my corn ground was sub-soiled, and the yield was very satisfactory. The month of July was dry and hot, and the leaves of my corn did not shrivel, while those in the adjacent fields rolled up."

Every farmer knows that a deep, friable soil will take up more rain water without detriment to the growing crop, than will a shallow, compact soil. For a similar reason, moisture from below will more readily ascend in dry weather and supply the roots of needy plants with their liquid aliment. But, do not forget that a soil sixteen inches deep requires twice as much mold as one only eight inches in depth. Now, the richest mold is that formed from the carcass of a dead horse or sheep; but as such organic matter is attainable only in homœpathic doses, the farmer should test his skill in producing mold from clover, peas, corn, grass, and other vegetables, to mix with his sub-soil. Beware of the folly of spreading farm labor over too large an area for the highest permanent profit. Fifty acres of good land are more valuable than two hundred of poor land.

WHEN TO PLOW, AND WHEN NOT TO PLOW.

In the course of a few sensible remarks on the relative profits of corn and wheat culture, in the February number of this journal, our friend Mr. Sperry, of Gates, says: "Do not plow your ground in the fall, (the opinion of Dr. Lee to the contrary notwithstanding,) to leech and waste its sweetness on the dessert air; but if practicable, plow it up one day and plant it the next."

As "there is a time for all things," there must be a time to plow. When is it?

Mr. S. is too good a farmer not to know that the proper time to commence tillage with a view to prepare the soil for seeding or planting, depends very much on the character of the earth to be cultivated. A light sandy loam needs but one good plowing and harrowing to prepare the ground for wheat or corn; and if it be sufficiently dry, no matter how soon the seeding follows the plowing. But suppose one has a stiff, close, compact clay, which breaks up in lumps as large as a man's head. What is so good to mellow these as the hard freezing of a northern winter and their thawing in early spring? When plowing is done late in the fall, as it should be, very little decomposition of organic matter will take place till warm weather sets in at and after planting, so that talking of "gases losing their sweetness on the desert air," is a poetical fiction, rather than a matter of fact.

As a general thing, we do not approve of plowing land and keeping it exposed naked to the sun and rains long before the seed is placed in the earth. It gains something by the mellowing influence of atmospheric air and other chemical agents in nature; but when this *fallowing* is long continued in warm weather, the soil loses a large share of the fertilizing elements evolved in the progress of tillage, before the young plants which are to form the crop become large enough to take up and organize its too abundant food. Thousands of farmers waste, and lose forever, no inconsiderable portion of their manure and the soluble elements of plants in the surface soil, by not skillfully adjusting the feed of living, growing vegetables, to their respective wants. This loss can only be avoided by studying all the changes which plowing effects in the soil, and *how cultivated plants grow.* When this is done, the enlightened agriculturist will know how early and how late he may properly break green sward, or plow any field for any crop. He will then comprehend the importance of *deep* and *fine tilth* to augment the available atoms required by nature to form a generous harvest.— These atoms often abound in an unavailable condition, which must be changed before the soil can become fertile. Many stir the earth when it is too wet. Drying immediately, the surface acquires an impervious crust, which arrests the most important chemical processes carried on in tilled land. It often demands a nice discrimination to say whether a certain piece of ground should or should not be plowed at a particular time. A sound judgment is indispensable to the farmer, if he is to escape committing grave errors in his complex profession. Experience and science should go together.

WHEAT.—ITS MINERAL FOOD.

Mr. Way, Professor of Agricultural Chemistry in the Royal Agricultural College, Cirencester, England, has contributed to the Journal of the Royal Agricultural Society an extended and exceedingly valuable paper on the "Analysis of the Asbes of Plants." These researches embrace, among other matters of interest, the analyses of 62 varieties of wheat, so far as to determine the amount of minerals which an acre of grain, including straw and seed, removes at each harvest. In straw, the quantity of ash per 100 parts ranged from 3½ to 5 per cent. In one sample the ash was only 2.74 per cent; in another the per centage was as high 11. The mean of 40 specimens is 4½ por cent. Those varieties of grain which had the most mineral matter in the straw were less liable to fall, and the stems were brighter and more exempt from mildew and rust.

The ash in wheat chaff varies from 7 to 16 per cent. In wheat, the analysis of 62 specimens gave a mean of 1.67 per cent. This result is about the mean between the results obtained by Dr. Sprengel, as copied by Prof. Johnston in his Lectures on Agricultural Chemistry, and M. Boussingault. In looking over the tables, we find no ash of the seed which contains quite half its weight of phosphoric acid, and none that has so little as 40 per cent. The next most abundant element is potash. Of this the proportion ranges from 33 up to 39 per cent. The third most abundant mineral is magnesia, which ranges from 9 to 14 per cent. After this stand soda and silica, the latter being mostly in the bran. Of lime, the figures run from 1½ up to over 8 per cent. Sulphuric acid and chlorine also exist in small quantities. In all cases the grain was cut close to the ground, and yet the wheat was nearly as heavy as the straw. The best yields were obtained by dibbling one seed four inches in drill and in rows twelve inches apart.

Considerable improvements are now making in England in the art of feeding wheat plants fertilizers that abound in available *azote* — a substance the agricultural value of which was first taught by Dr. Samuel Mitchell, of New York, about 60 years ago. It most abounds in cabbages or in cruciferous and leguminous plants. Azote is but another name for nitrogen, which forms about four-fifths of the air we breathe. This atmospheric nitrogen is not available in wheat culture till it is combined chemically with hydrogen to form ammonia, or hartshorn; or with oxygen to form nitric acid (*aquafortis.*) This acid combined with potash makes saltpetre, which is a most valuable fertilizer for wheat. Leached ashes and stable dung in a compost is a sort of nitre bed — a contrivance for converting atmospheric azote into nitric acid, just as burning wood converts the oxygen of the air into carbonic acid. The economical preparation of food for plants on scientific principles, is altogether too much neglected in this country.— Probably not one-tenth part of the liquid and solid excretions voided on the farms in the United States, is ever re-organized in the succeeding crops. After the manure is applied to the land, more than a moiety is lost before it enters the roots of plants. We can never have good crops of grain, grass, and potatoes, at a cheap rate, till we learn how to save all fertilizers, and work up the raw material of our several harvests to the best advantage. It is just as bad economy to apply too much as too little manure, to any given surface.

Two of the most expensive elements in grain culture are phosphoric acid and potash. These are derived from the soil alone, and are everywhere wasted, over more than 100,000,000 acres, in this empire of farmers. Other elements, equally necessary and nearly as expensive, are also thrown away in a thousand forms. It is high time there was a *poudrette* manufactory in every city and village in the Union; and that the fertilizing atoms so prepared be drilled in with seed wheat, here as in England, Belgium, and China. We evince a strange lack of common sense by continuing to impair the natural fertility of our arable lands, with the certainty that we must give more and more labor for every 100 bushels of potatoes, wheat, or corn that we annually grow. Keep all manure out of the rain. Be careful to save all ashes, and procure bones, gypsum, and lime.

OKRA.

Messrs. Editors: — Several of my neighbors have received seeds from the Patent Office at Washington, and among them was one paper of Okra seed. How are they used? Some say that the pods are pickled. If so, at what time. A. Willson.—*Marcellus, N. Y.*, 1850.

Okra is a native of the West Indies, where it is much used in soups and stews. Its use is rapidly increasing in this country. There are two varieties, the large and the small podded. The seeds are planted in the spring, either in rows or hills three feet apart. The plant thrives readily, and requires no further care than is requisite to keep it free from weeds.

THE COMPOSITION OF MILK.

Modern chemistry has thrown much light upon this very important branch of rural economy. Of all agricultural products, none is more valuable, more widely diffused, or more difficult to dispense with, than *milk*, and the *butter* and *cheese* manufactured from it. Many elaborate and careful experiments have been made by Boussingault in France, Prof. Thompson, and others in England, with the view to test the quantity and quality of milk produced by animals fed upon different kinds of food. These experiments have elicited many important facts of great value to the dairy farmer; but much remains yet to be done before this subject can be fully cleared up. The economical production of milk by means of the machinery which Nature has provided, must be carefully studied, and reduced to a science. This article, which constitutes so large a proportion of human food, will then be regarded as a *legitimate manufacture*, and improvements in the *machinery*, or the animals which elaborate it, will add millions to the agricultural wealth of the country.

The component parts of milk in all animals, both herbivorous and carnivorous, is the same. It differs only in the proportion of its principal ingredients. Substances are, however, occasionally found in milk, arising from the peculiar food of the animal, which render it medicinal, or even poisonous. The following table exhibits the composition of the milk of different animals, in its ordinary state, as found by Profs. Henry and Chevallier:—

	Woman.	Cow.	Ass.	Goat
Casein, (cheese,)..	1.52	4.48	1.82	4.08
Butter, ...	3.55	3.13	0.11	3.32
Milk Sugar, ...	6.50	4.77	6.08	5.28
Saline matter, ...	0.45	0.60	0.34	0.58
Water, ...	87.98	87.02	91.65	86.80
	100.00	100.00	100.00	100.00

From the above it will be seen that asses' milk contains much less butter and cheesey matter than that of the cow. It is probably from this circumstance, and its similarity to that of the human species, which, from the most remote times, has recommended it to invalids as a light and easily digested drink.

The richness, or proportion of butter and cheese, contained in cows' milk is well known to depend upon the food of the animal, the period of gestation, and the time of her giving the milk. That taken last from the cow during the same milking usually contains much the larger proportion of butter. Its temperature is from 65° to 75°. To the naked eye it seems a pure, white liquid; but when viewed through the microscope, an infinite number of minute globules appear, which contain the oily part, or the butter. When the milk is set away in the dairy, these oily particles, being the lightest, gradually rise to the surface and form the cream. But when milk is exposed to the atmosphere, the sugar it contains slowly changes into an acid called *lactic acid*. This causes the casein or curd to coagulate, prevents the separation of the cream, and the milk becomes *sour*. As this acid is usually formed before all the buttery globules have risen to the surface, the curd always contains more or less butter; sometimes as much as two per cent., or one-half the whole quantity contained in the milk. Hence, the longer we can keep the milk sweet the more cream we can obtain. Now, it is impossible to prevent the change of the sugar into lactic acid; but we can in some measure counteract its effects by adding to the milk a substance that will absorb the acid as it is formed. *Carbonate of soda*, or the common soda of the shops, is the substance which experience has proved best for this purpose. Less than a tea-spoonful of soda dissolved in water and well mixed with four quarts of milk, will often keep it sweet for four or five days; thus allowing all the buttery particles to rise, and doubling the quantity of cream. In very warm weather more than the above proportion of soda is required.—Another advantage from this process is, that it matters little what kind of vessels are used to contain the milk, whether of stone-ware, wood, or metal. In France large wooden tubs are often used, with a faucet at the bottom, through which the liquid can can be drawn off from beneath the cream. In this way the labor of the dairy is made much more simple and easy.

In order that the butter may have no bad taste, the soda must be pure, and especially free from *sulphate of sodium*, (glauber salts,) which it often contains. To test its purity, dissolve a little in water and then add sufficient vinagar to make it effervesce. Now put into this a piece of silver, as a tea-spoon, for instance, and if after remaining a short time it retains its bright appearance, you may depend upon the soda as pure; for it it contains the least particle of *sulphur*, the silver will become tarnished. After the soda has been dissolved in water, it should be strained through a piece of linen before mixing it with the milk.

From forty-eight to seventy-two hours are required completely to separate the cream. When this has been done, the liquid loses its white color, and acquires that *bluish* appearance well known to be the characteristic of *skimmed-milk*.

The souring of the cream is caused by the acid formed in that portion of the milk that adheres to the oily particles, and can be prevented, or rather retarded, by the process above described. The *carbonate of magnesia*, or twenty drops of *ammonia*, will be found to answer the same purpose as soda. F.—*Washington, Feb'y*, 1850.

CHEMICAL PROPERTIES OF BUTTER.

BUTTER is nothing more than the substance formed by the union of the oily particles contained in milk. Each of these globules is surrounded by a very thin film of casein, or curd, which can be easily detected with a microscope. When the temperature of the cream or milk is raised, these, from their lightness, press towards the surface, break through the delicate covering which envelopes each globe, and run together into an oily mass: this is butter. The same result is attained by beating or violently agitating the cream, as in churning. This union is purely mechanical, and no chemical action takes place except in the formation of the acid by which the cream is soured, and which is absolutely necessary before the buttery particles will unite. Thus the cream must either be permitted to stand until it sours, or else it becomes sour during the process of churning. In the latter case it is often necessary to raise it to a higher temperature, and sometimes it is best to add a little sour milk, or some other acid substance while churning, and this will be found often to hasten the formation of butter. In many parts of Holland they are very careful to skim the milk while yet sweet, but allow the cream to become sour before it is churned. By churning the cream sweet, you obtain butter of a more delicate flavor but in less quantity. When soda or ammonia is used to keep the cream sweet, you obtain the largest possible quantity of butter, and it has all the delicate flavor peculiar to that made from sweet cream. In many countries all the milk is churned, under the impression that in this way more butter is obtained than from the cream alone. This cannot be the case where the cream has been properly separated from the milk; and besides, in churning the whole of the milk, it is impossible to separate all the butter, from the difficulty of acting equally upon and keeping in motion so large a body of fluid. In the vicinity of towns, where there is a ready sale for butter-milk, it may perhaps be good economy to churn the milk; but in the country, where there is no market for butter-milk, it is undoubtedly a better plan to churn only the cream, while from the skimmed milk a marketable cheese can always be manufactured. The proper temperature of cream in churning is about 55°; when the whole milk is churned it should be 8° or 10° higher. If it is raised too high, the butter comes quick, but is usually soft and white. This is often the case in warm weather, and the only remedy is to use ice, or to keep the milk in a very cool dairy. In churning, the motion should be regular and moderate; slower in warm weather than in cold, that the temperature may be uniform throughout the whole mass; and it has been found, from a series of experiments, that the hardest and finest quality of butter was obtained after churning at the above temperature from an hour and a quarter to an hour and a half. To ensure good hard butter at all seasons of the year, particular attention should be paid to the temperature of the cream; and on a good dairy farm ice should always be accessible, by which, even in the hottest summer weather, the cream can be brought down to the proper temperature.

It is well known that the food of the cow influences both the quantity and quality of the butter. When the cow is fed on hay or dry fodder, the butter always comes the hardest; and it is said that the orange carrot, when fed to milch cows, will impart an agreeable flavor and a rich yellow color to the butter. To add the juice of the carrot to the butter after it is made, as is sometimes done to give it a saleable color, is a very bad plan, as it makes it much more difficult to keep sweet. When butter is to be kept any length of time, it should be worked as free from butter-milk as possible. The imperfect manner in which this is done, is the principal cause of its becoming rancid so soon. On taking it from the churn, it should be placed in a linen cloth and pressed between two boards until most of the butter-milk is extracted; it should then be washed in cold water, changed as often as it becomes milky, and after being salted it should be set away in a cool place until the next day, when by again working it over, the remainder of the butter-milk can be easily separated. Now let it be put down in earthen or stone-ware jars, packed as closely as possible, and after sprinkling the top with salt, let a thin layer of powdered charcoal be put over all, the more effectually to exclude the air and to absorb those gases the tendency of which is to hasten decomposition. Butter put down in this way can be kept sweet a long time even in warm climates. In Holstein, where very choice butter is made, they pack it in firkins made of beech-wood charred on the inside. The salt used should be of the best quality and very fine. Much butter is spoiled from using salt containing lime and other substances which hasten its decomposition. Salt can easily be purified by pouring upon it a little warm water and allowing it to drain: it dissolves and takes out the lime and other extraneous substances, and leaves the salt nearly pure. The quantity usually added to butter is one ounce to the pound. After butter has become rancid, it can be restored and made perfectly sweet by a very simple process. This is, to wash it well in cold water, often changed, and after pressing out the water, salt it anew and add a little sugar, say half an ounce to the pound. This will be found to render it much more palatable, although it may not entirely restore that delicate flavor peculiar to new and sweet butter, which once lost can never be restored.

The above hints on making and preserving butter, I have translated from a French Agricultural Journal, with such additions and alterations as make them applicable on this side the Atlantic. W. P. F.—*Washington, Jan'y*, 1850.

NOTES FOR THE MONTH.

A Milch Cow.—A correspondent in a late New York Journal of Commerce, under the signature of "Traveller," says that "on the farm of John Johnson of Fayette, near Seneca lake, a cow gave forty-two quarts of milk per day through the month of June, 1848; and for five days she gave forty-five quarts per day." It is a pity that a paper which so ably advocates our great agricultural and commercial interests, should thus condescend to lend a hand to hoax our farmers with such a *milk story* as this.

A gentleman of this place, Joseph Wright, who is justly distinguished for his great practical success in developing the resources of nature, in both her vegetable and animal kingdoms, went to the farm of Mr. Johnson one day in the same leafy month of June, 1848, where he saw the said cow, and learned from Mr. J. that she gave a pailful of milk three times a day. The pail now became an object of curiosity to our practical friend, which, when produced, proved to be a ten quart tin pail with a strainer of the ordinary kind! Mr. W. has since compassed the land east and west, to procure a cow that will give forty quarts of milk per day, without success. He now authorizes us to say that he will give $500 for any cow that will give forty quarts of milk per day for any three consecutive days in the year.

John Johnson of Fayette, stands in the front rank of Seneca's masterly farmers. As the "Traveller" says, he has "miles of under-drained fields," whose surface and sub-soil seems to have undergone an amelioration almost magical,—a successful experiment, which many of his astute neighbors are preparing to imitate. Such a man needs not the aid of fiction to gild his truly substantial respectability. If he told a "Traveller" a *fish story*, our word for it, it was only from that irresistable impulse to sportive *humor* a *trace* of which we trust may be found in the *organic elements* of his Scotch character.

Rural Literary Progress.—If we may judge from the tenor of the correspondence of Bateham's Ohio Cultivator, the rural population of that State are much more alive to the necessity of their own literary improvement, and to their progress in agricultural science, than are the same class in the Empire State. At the west, at least in Ohio, there seems to be a growing desire for progress, to which is added a sort of fear akin to jealousy, that rural New York has more State patronage, more schoolmasters in the field, and is going ahead of them in literature and science; while on the other hand the great mass of our farmers, good easy souls as they are, seem to lay the unction to their souls that being sovereigns of the Empire State, they have by birthright all the knowledge and all the honor necessary to their calling and position in life.

A farmer, writing to the Ohio Cultivator, speaks feelingly of the wretched common school system tolerated in that State. He adverts to the mode of hiring teachers as though the "price and not the qualifications" of the itinerant biped who claims the name and office of schoolmaster, was the great desideratum there.

A farmer's daughter, feeling a desire for more school learning than her district school can give her, appeals to the editor of the Cultivator for his opinion of the propriety of a farmer's daughter going to a select school, about which she has some misgivings, as two girls who had *finished* their education at a seminary, "came home, as every body said, 'too proud to work and too poor to live without it!'" So far from "finishing their education," it is most probable that the principal of that seminary would say that their studies had come to a sad ending. I once heard a master in Israel complain of the low state of talent generally in the priest's office. He said, if a man has a precocious son, he puts him into a law office or some other profession or trade where his genius may have scope; but if he has one son duller than the rest, the absence of genius or passion in him is *prima facie* evidence to the father that the son is pious, and he is fitted for the *ministry* as a matter of course. Had the parents of these two girls sent them apprentice to a milliner or a mantua-maker, they would have hit their vocation much better than in placing them at a select school. Who believes that a liberal school education unfits the mind to enjoy the plain domestic labors and comforts of the farm? So far from it, it opens to the mind the true avenues to the study and practice and just appreciation of the useful and ornamental, the beautiful and true, in intellectual, practical, and social life. It enables us to value the gloss and tinsel of the world at just what it is worth—to avoid mistaking the extrinsic for the intrinsic, pretence for merit, &c., &c.

Indian Corn.—Over fifty thousand bushels of Indian corn has been taken in by one firm in this village, within the last three months, at 50 cts. per bushel. Thirty years ago but little corn was grown in this county; wheat was then the great paying crop—the grand *arcanum* of the farmer In that day, corn was so much neglected that many fields of primitive fertility might be seen at harvest with more bulk of weeds than corn stalks—the cereal crop not averaging twenty bushels to the acre. But, as the French say, all that is changed now. Wheat is no longer a certain crop on the same soil, now exhausted of its phosphates, and of late a prey to the fly, the worm, and the rust. Indian corn being a grosser feeding cereal, requires only the strong nitrogenous manure of the barn-yard, the hog-pen, or old sward, with good, early, and frequent tillage, to insure a large crop almost any season in our climate. Hence, at this time corn is fast becoming the favorite crop of our farmers. An extended foreign market (thanks to free trade) has contributed greatly to the value of this crop; and this foreign demand must increase, as the value of Indian corn as a palatable and economical article of food, is just beginning to be known in Great Britain. In fact, we are told that the only perfect article of Indian meal of the true sweet *nutty* flavor yet eaten there was imported into England on the cob.

For many years I have supposed that fresh barn-yard manure well worked into a rich calcareous clay soil to be planted with corn, would enable the crop to stand our summer drouth better than old and well rotted manure; but the experiment of the past season proves otherwise. Last spring I put no manure on my corn patch. The drouth in July and August was the most trying, I have known for many years; yet not a corn leaf rolled. I never saw more corn, or more perfect ears, grow on the same extent of surface. Had this patch been manured as usual, the temperature of the soil would have been increased during the fermentation of the manure in the hot weather of the long drouth, and the evaporation would have been great; as it was, the manure applied the previous spring now performed in the soil the office of well rotted manure. Stirring the soil often during the drouth, let in the oxygen of the atmosphere, which readily formed water with the hydrogen of the decayed humus. For several previous years, my corn being manured with fresh stable dung, its leaves rolled during the drouth, and many ears did not fill. But I would advise farmers to manure with unfermented manure this spring, as the probability is that after so many dry seasons the next will be cold and wet, when a necessary increased temperature in the soil can only be attained by draining or the application of fermenting manures! S. W.—*Waterloo, N. Y., Feb'y*, 1850.

ON SMUT IN WHEAT, AND THE CAUSE OF IT.

MESSRS. EDITORS:—This being a season of the year when practical farmers have the most leisure time during the day, with long winter evenings in which to read, reflect, and learn the ways of men and things, I propose to furnish for your useful and widely circulated paper a few communications, containing statements of *facts* in relation to agricultural matters, as they "came to pass" with me, together with such inferences and opinions as I have formed upon those facts; and inasmuch as I have recently observed in newspapers some publications in which the old, absurd, and (as I had believed) exploded hypothesis of the "*fungus*" origin of smut in wheat is revived and inculcated, I will begin with that subject.

During the winter of 1833, while spending some months in Albany, I wrote and published in the Albany Argus a series of articles, containing my observations and experiments continued through several successive years, in relation to the "cause of smut." Those articles were written in the plain, common language of the country, *(as all such communications should be,)* and addressed to "*practical farmers*," as being the persons most immediately interested in the subject matter of them. A series of experiments, continued through the past *sixteen* years, has in every respect corroborated the statements made in my former publications on this subject. I will, therefore, here request you to insert those articles as follows:

NUMBER I.

I have read many essays on the subject of the smut in wheat, and almost every writer has invented a new hypothesis as to the cause of it. In the *refinement* of their theories, (like philosophers in most other speculations,) they have, in my opinion, wholly "overstepped the modesty of nature," in their vague conjectures about "*invisible insects*," *vitiating principles in the air*," "*diseases arising from unseasonable cold and wet*," and that *smut is of an animal nature*, &c., &c. None of these theories or conjectures were satisfactory to my mind; but as I had not sufficient information to enable me to controvert them, or even with any propriety to question them, until very recently, I have remained silent, hoping that some one more capable than myself, would undertake a series of observations and experiments, which might result in a discovery of the true cause. Not being aware that any one has done so, and believing that some facts in my possession relating to this evil may be of service to intelligent farmers, (by drawing their attention to it, if in no other respect,) I will proceed to state them. It is perhaps proper here to premise, that for several years previous to 1830 my wheat crop had been considerably affected by smut; but by letting it remain in the field, *uncut*, until it was thoroughly, or *dead* ripe, the smut grains became so perfectly dry, that when the crop was threshed, they were very nearly all broken. The dust was cleaned out by the fanning mill, leaving the wheat entirely free from the smut usually found sticking to the "*downy*" end of the grain. In the summer of 1830, finding that my wheat had an unusual quantity of smut in it, I determined, if possible, to discover the cause of it. I commenced my operations by pulling up the stools of the smut wheat and examining the roots. In all cases (and I examined a very great number) I found the roots mouldy and rotten, the outer covering or "bark" had evidently been eaten off by some worm or insect; but of what kind, I was unable to ascertain. After several days of fruitless examination, I accidentally discovered on one of the smut ears a very small ash colored *bug*, about an eighth of an inch in length, something less than a line in diameter, and about a line in height. It appeared to be busily employed in gnawing its way into the husk or chaff of one of the smut grains; in a few moments it perforated the chaff, and began to feed greedily on the smut grain within. My curiosity was excited by seeing that little insect feasting, with much apparent satisfaction, upon a substance that I had always supposed no animal in the world would eat. After some reflection, it occurred to me that many animals appear to have an innate knowledge or instinct, which pointed out to them the best mode of preparing their food; and observing that this bug seemed to be feeding on its natural aliment, I determined to make some experiments for the purpose of ascertaining what agency (if any) this species of bug had in the production of smut. On a careful examination, I found one or more bugs on almost all the smut ears. A day or two afterwards, I took a small clean glass bottle, into which, after much care and trouble, I succeeded in putting three or four smut ears with about a dozen bugs on them; a paper cover was then tied over the mouth of the bottle so closely that no insect could get in or out. The bugs continued to feed on the smut grains for about three weeks, when they all died. Thinking it probable that they had deposited their nits or eggs in the smut grains, I took the smut ears and dead bugs out of the bottle, cleansed it thoroughly, brushed the dirt off the ears, and again put them into the bottle, which was closed as before. Within about four weeks I had a considerable number of young bugs hatched out, which immediately began to feed on the remaining smut grains. I kept them several weeks, untill during autumn they all died also.

NUMBER II.

During the summer of 1831, I again found that my wheat was smutty, and repeated my experiments upon the same species of bug, (mentioned in my first number,) of which I found great numbers on the smut ears. As in the preceding year, I put as many of the smut ears, with the bugs on them, in my bottle as it would conveniently hold: as before, the bugs all died in the course of three or four weeks. I then carefully examined many of the smut grains, in nearly all of which I found a small maggot or worm. Some were about an eighth of an inch in length, and in diameter nearly as large as the parent bugs; others were smaller, and several so small as to be scarcely visible to the naked eye. In some of the grains I could not discover any maggots, I presume because they were too minute to be visible to the naked eye, and I had no lens with which to examine them. The remaining smut grains were left untouched in the ears, put into the bottle again, and in two weeks I again had another full crop of bugs hatched out. These last, with the smut ears in which they were bred, I now have in my possession. A few days after I had found the bugs in my bottle were hatched out, I observed immense numbers of the "*smut bug*" (as I shall hereafter call them) almost literally covering the floor and timber of the barn where my wheat was housed. There must have been *millions* of them. No doubt they had been bred in the smut ears carried in with the wheat. Within three or four weeks they all disappeared. Those which I saw in the fields were extremely shy, and upon the slightest touch of the ear fell to the ground, where they laid perfectly still and inanimate, *feigning*, as it would seem, to be *dead*. Being so small, and in color approaching to that of the soil, *(a gravelly clay,)* it was very difficult to find them. After remaining quiet, however, for a few minutes, they ran up the stem of the smut wheat and resumed their feeding on the smut. They were quite active in *running;* but whether they ever did, or could *fly*, or not, I could not ascertain. Their *habits* appear to be similar to those of the *pea* bug; and on a close examination, I have found several smut heads, in which all the grains had evidently been perforated near the lower part in the same manner that pea pods are found to have been perforated by the pea bugs. The punctures were so minute as to be scarcely perceptible to the naked eye: but I do not doubt that with a good glass all the smut grains would have been found to have been perforated in the same manner.

Upon much reflection I have come to the conclusion, that smut wheat is the *natural* food of the bugs I have described. There may be, and very probably are, other vegetable substances upon which they sometimes subsist when their natural aliment is not to be obtained. But as *conjectures* without *facts* upon which to found them are oftentimes worse than useless, I shall refrain from suggesting any at present, although (if convenient) I may hazard some in a future number.

That the smut is *not produced by a disease in the plant*, is, I think, conclusively proved by the facts I have stated. But if *additional* proofs were wanting, I have them, sufficiently strong as I should imagine to convince the most sceptical, in some circumstances which took place on my farm during the past year. I had, the previous year, taken much pains to procure seed wheat, to sow in one of my fields, which was perfectly free from smut. The land had been in clover about three years. It was plowed three times, and was in excellent order. The wheat was sown in good season, and in the fall looked very well. It continued to grow finely until it eared out, when I discovered it to be more smutty than any other which I had on my farm, although there were *two* fields which had borne a smutty crop the previous year, that had been again sown. I was at a loss how to account for this, until I recollected that the *clean* field which I had sown with *clean* wheat, had been well *manured* a few weeks before the wheat was sown. The manure was taken from the barn yard where all the straw and chaff of the smutty crop of the previous year had been thrown when it was threshed out. The *smut grains* of the former crop were undoubtedly carried into the field with the manure. In these smut grains, I presume, the *maggots* of the smut bug existed in great numbers, and thence came the *insects*, which smutted the wheat to so great a degree as to amount, probably, to one-tenth part of the whole crop in the field. J. H. H.

(To be continued.)

SALT AS A MANURE.

Messrs. Editors:—In my Farmer for January I find that our friend **Park** has given his experience in the application of *salt* as a manure. I confess I can not see any substantial proof of its efficacy as a manure, from his experiments. His first is on a seven acre lot which had had no manure for four years, and then only a small quantity. Now, mark—

At the commencement of his experiment he puts on a small quantity of manure. In September, 1847, he plowed it up; in May, 1848, he plowed it again and sowed on it seven barrels of salt; about two weeks after he dragged it both ways, and in the fore part of July plowed it again and kept the drag at work; about the middle of August plowed it the fourth and last time, and on the first and second of September sowed it with wheat at the rate of two bushels per acre. Now then, from friend **Park's** care in fitting his land and putting in his seed, I think he could reasonably expect forty bushels per acre in a good year without an ounce of salt being put on his land. I believe his county is as good for wheat as Ontario; and I have seen in the town of East Bloomfield, Ontario county, thirty acres of common land, which had been cropped with wheat every other year for some time—not a particle of manure—plowed in May or fore part of June, cultivated in July, and again just before sowing, which was about the first of September. The next spring, or fore part of summer, it was injured by the worm to such a degree that the proprietor told me he would be willing to take thirty bushels for the whole crop; but afterwards it began to recruit. On harvesting and threshing, it averaged him thirty bushels per acre, thus showing to my mind that friend **Park** might possibly have had just as good a crop without the salt.

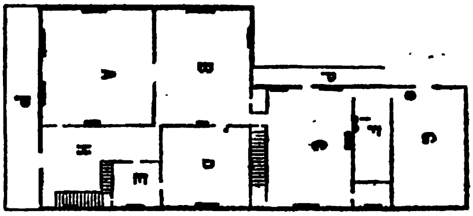
In his second experiment the evidence is more conclusive, but not indisputable to my mind; for his success might have arisen from other causes: First, had it been a very dry season, the swampy acre might have been sufficiently moist to keep the wheat growing, while the fallow would have been too dry; or, second, it might arise from the swamp muck not being sufficiently decomposed or mixed to promote a healthy growth before.

Now, in all probability friend **Park** has other evidence in his mind which satisfies him of its utility. Will he not give us a little more light on this subject?

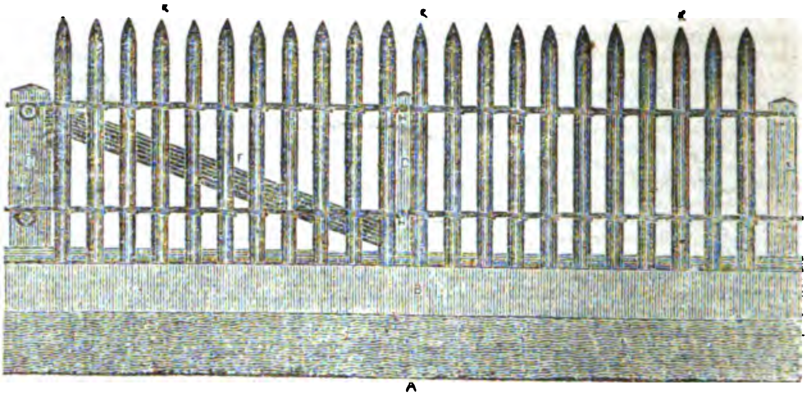
To convince myself, I have a small piece of land which I shall try with salt next spring. Yours, &c., C. B. **Jewell**.—*Groton, N. Y., Jan'y*, 1850.

CONVENIENT PLAN FOR A FARM-HOUSE.

A, Parlor, 18 by 18. B, Sitting Room, 18 by 16. C, Kitchen, 14 by 18. D, Bed Room, 14 by 10. E, Children's Bed Room, or Library, 13 by 10. F, Wash House, 13 by 18. G, Wood House, 18 by 18. H, Hall, 10 21. P, Piazza.



Messrs. Editors:—I enclose a plan of mine for a farm-house, which you are at liberty to make use of. It may not be new to you, but I do not recollect seeing anything exactly like it, nor have I seen any that suits my notion of a farm-house as well. I have not made any plan of the outside nor any estimate of the expense, as these would vary according to the location and means of the builder. The main building is 28 by 34 in the clear, and the wing, without the wood-house, 18 by 25. There is no room in the house but what may be entered without going through another, and but one room from which a person can not look out on the highway. The second story can be reached privately from the kitchen. The servants rooms are convenient to the kitchen, and that for the males can be entered from the wood-house. There is a stairway under the kitchen stairs, leading to the cellar, and an outside entrance can be had where it is desired, for the entrance of barrels or roots. The sketch is merely made from the eye in somewhat of a hurry, but will serve to give you an idea of what I mean. J. O. **Schultz**.—*Sloatsburg, N. Y.*



WIRE TELEGRAPH FENCE.

We have received from Mr. Leavenworth, engravings and a discription of his Wire Telegraph Fence. We copy the following full description from the New York Farmer and Mechanic :—

"This fence is the invention of Mr. Lucius Leavenworth, of Trumansburg, Tompkins Co., N. Y., for which Letters Pattent were issued last October. The wire can be formed so as to put the pickets up in sections of any required length. It is drawn sufficiently tight at each corner of the field to strengthen the fence and fasten the pickets so that a brace is necessary at the first and last posts. The remainder of the posts, if wood, can be set in sills ; if iron, in flat stone. The hooks H, H, pass through the posts to allow the wires to be drawn. The screw on the opposite side of the posts will draw the end of the hook to the post which secures the wire. The wires are first secured on the post C, by screws or bolts, so that all the parts are of simple construction. The wires are formed, by a machine invented by Mr. Leavenworth, so as to encircle and retain the picket in a most simple manner. The machine forms the wire to any sized picket, and for any required space. The picket is turned with cylinder or traversing lathes.

Fences made on this plan, attached to cast iron posts with wrought iron tennons and stone seats, would last for a number of years if well painted. The pickets can be made of the cheapest kind of timber ; and when it is painted will be durable. If preferred, a cheap kind of varnish could be used instead of paint. The pickets and wire might be painted or varnished before they are put up. On bottom lands, where a movable fence is required, it will supercede all others. It can be taken down, removed, and put up with very little trouble, weighing only about thirty-five pounds to the rod.

There are different plans for putting up this fence. The one in the engraving is probably the most substantial. The ground can be raised and a tier of stone laid instead of a board or the fence can be suspended from post to post without either.

This fence offers but little opposition to the wind, and consequently no snow wreaths are heaped around it. It is calculated to be a safe-guard against all animals commonly fenced against. The transportation of this fence will be trifling compared with other fences. It is well adapted for farmers on the western prairies, and in all countries where timber is scarce. With suitable machinery, where timber is plentiful, it is calculated that pickets can be manufactured for from thirty to thirty-five cents per rod ; the wire formed for putting it up will cost from twenty to twenty-five cents.

To make use of this fence for telegraph purposes, it will be necessary to suspend it from post to post, and insulate the wire at the posts. A farmer having his land inclosed with this plan of fence, with certain fixtures attached to it, can tell whether his fence is down or any part of it is broken without leaving his dwelling.

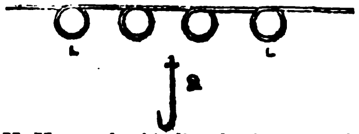


Figure 1 is a front, and fig. 2 a sectional view of the improved wire fence. A is the ground ; B the bottom or base board ; C, D, E, are the posts ; K, K, K, are the pickets ; L, fig. 2, is the wire ; H, H, are the binding hooks, one of which is reprerented in fig. 2. The bottom board is bevelled at the top, and the bottom of each picket has an angular notch cut in it to fit on the upper edge of the board, which gives firmness to the fence, while the board presents a bevelled edge to the weather.

Any communications, post-paid, in regard to this fence, or for the purchase of Rights of States, Counties, &c., may be addressed to the patentee at his residence, or to Mr. John Savage, No. 9 Coenties Slip ; also, the editors of the Farmer and Mechanic, who are authorized agents for the same."

* * *

Messrs. Editors :—While reading an article in a late number of the Farmer, from the pen of Prof. Dewey, of Rochester, N. Y., the following inquiry arose in my mind : Suppose, as is generally believed, that the earth is an oblate spheroid, i. e. flattened at the poles, and at rest in space, i. e. having no rotation or revolution on its axis, and consequently no centrifugal force, where would its attraction, i e. the force of gravity, be greatest—at the equator ? or at the poles ? An answer (amounting to a mathematical demonstration, if possible,) is desired, if such a subject is admissable into the columns of the Farmer.
H.—*Down East, Jan'y*, 1850.

* * *

Franklin found time in the midst of all his labors to dive into the hidden recesses of philosophy, and to explore the untrodden path of science. Want of time, therefore, is but a poor excuse for ignorance of one's profession.

PRESERVING FENCE POSTS FROM ROT, &c.

Eds. Farmer: — Much has been said and much more will undoubtedly be said on the subject of making fence. Much information has been elicited and much more yet remains in store to be hereafter given to the public. It is a subject of much magnitude to the farmer; for a good fence is an important item, subject to no small outlay both in its original construction and its subsequent necessary repair. If your fence is not made of stone or iron, then it must be made of materials more perishable. And the question is, if the fence is made of wooden materials, what mode of construction and what timber is the best and most durable? Whoever has turned his attention to that subject for the last thirty years, must have perceived that all around him are common rail fences which have stood from thirty to forty years, having most of the rails in a state of perfect preservation. He will also see others, having stood less than fifteen years, in a state of total decay. And if he takes a still closer view, he will discover that the fences most durable are made of rails of chestnut, or black ash, as No. 1, for durability, black oak and cucumber as No. 2, and hemlock, hickory and basswood as No. 3.

With these facts before us, let us see what would be the best material for posts to use in constructing a board or even a wire fence; for no one will doubt the necessity, or at least the economy of using the cheapest and at the same time most durable timber. Red cedar posts, set in the earth for a board fence, will last — I can not tell how long; for I have only tried thirty-two years, and as yet they are all sound. They cost with us about $20 per 100, or 20 cts. each. Chestnut and black ash will probably last from ten to fifteen years; oak about ten years; and the almost uniform time for *hemlock* is six years. I have emphasized the word hemlock from the fact that, excepting cedar, it has been more universally used than any other timber, while it has hardly its equal in its tendency to rapid decomposition. Even the posts sustaining the telegraph wires from Buffalo to Cleveland are mainly hemlock; consequently they will not stand over about six years without renewal.

Every observer must have discovered that the post first gives way at the point where it enters the earth. To prevent the rot at that point has been the subject of much inquiry and many experiments. I will not attempt to go through with all the different methods taken to prevent the rot, such as charring, lime, ashes, corrosive sublimate, &c., but will ask the reader's attention to the one fact that, while the post decays at the place where it meets the surface of the ground, he will frequently find all above that in a state of entire preservation. The great question to be solved, then, is, How can we prevent the post from decaying at that point? I answer, that it can be done by one of the most simple and easy methods. But let us, in the first place, see what is the cause of the decay at that particular point. First, It is not moisture; for timber will remain at the bottom of a river or lake for centuries. Second, It is not the want of moisture; for timber will also last for centuries in a building where it is kept dry. It is, then, a combination of moisture and air that does the mischief. The remedy I now propose will not cause the post to endure for ever, but it will cause every part to be durable alike — the part below the earth to be as lasting, or nearly so, as the part above the earth.

Dig the hole for the post a sufficient depth — say two feet. Make the hole much larger than the post, especially in the longitudinal direction of the fence; put the post in its place and fill the hole around the post with round cobble stones, weighing from five to twenty pounds each. Let none of the earth be returned to the place it came from; the stones support the post and at the same time admit the air to it, and it is thus preserved. I have sometimes dug the hole three or four feet long in the direction the fence runs, and about one foot wide, then placing one large flat stone on each side the post in the direction of the strain. If the stones have an uneven surface, so much the better for admitting the air. In using this method, I leave the remainder of the hole without filling up. S. S.—*Westfield, N. Y.*, 1850.

MANAGEMENT OF SWINE

Messrs. Editors: — I give you my experience in the management of swine. In the first place, I take December pigs, let them run with the sows two months, then wean them and enclose them in a pen, in which they are moderately fed on corn with as much milk from the dairy, or good swill of some kind, as will keep up a thriftiness. As soon as clover is in blossom, I leave off grain feeding and give clover three times per day until after harvest. I then turn them on to stubble. They remain there until about the first of September, whence I remove them to a pasture adjacent to my corn field, and keep up their condition by giving them a small quantity of green corn. When the time of fattening comes on, I have my hogs in very fine condition to take on fast. I enclose them in a pen and feed them altogether on corn and water, and by the time the weather is cold enough, which is the latter part of November, I slaughter them at the age of about eleven and a half months. With this treatment they weigh from 225 to 250 pounds dressed pork. In the mean time, my second litter comes on in June, which have the benefit of the stubble with the first litter, and running with the sows, and sucking, they get a very fine start. At about two months old I wean them and enclose them in a pen, taking the same process as with the first litter, only forcing their growth more rapidly by giving good slops and as much corn as prudent, without fattening too rapidly for their growth. I continue this process until the first of January. I then slaughter them at about the age of six and a half months. They will average 150 pounds of dressed pork very readily. This is no fiction, but matter of fact, from personal observation.

You will now perceive that from one sow, say having two litters in one year, eight pigs in each litter, the result will be as follows: First litter, eight pigs, weighing 225 to 250 pounds each, aggregate 1800 to 2000 pounds; second litter, eight pigs, average 150 pounds, aggregate 1200 pounds; which would make from 3000 to 3200 pounds of dressed pork from one breeder. This has been my treatment of hogs for the last few years, and I am satisfied it is the most profitable way I have ever tried. Brother farmers, this is an experiment on the Bedford hog, which has the qualities of enormous size and great tendency to fatten at any age. Yours, &c., Edmund J. Rosenberger.—*Smith's Creek Farm, (near New Market,) Rockingham Co., Va., Jan'y*, 1850.

Industry and perseverance merit success.

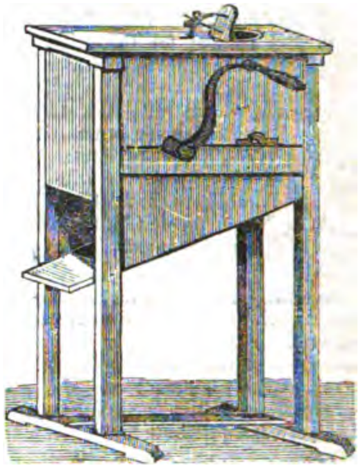
WOAD.

Messrs. Editors: — In Vol. 7, No. 3, of the Genesee Farmer, a subscriber wished information, through the columns of that paper, concerning Woad, &c. As no answer has appeared, and as I have some leisure time, I will proceed briefly to answer the inquiry, if better late than never. Where woad seed can be obtained, I can not positively say. In the catalogue of G. Thorburn & Sons, of New York city, and in the catalogue of Mr. Prince, of Flushing, Long Island, some years ago, among other seeds that of woad was advertised for sale. I know nothing about the price per pound. Several years ago I received a small quantity of woad seed from a friend, which I sowed early in the spring, on good sandy loam. The amount was small, but it grew finely. At the proper time the leaves were cut and manufactured in the usual way, and the article so manufactured was used by a neighboring dyer.—Woad seed should be sown early in the spring on good, dry, well prepared soil, in rows eighteen inches apart, to stand six inches, or more, apart in the row, and the ground to be frequently stirred with the hoe and kept free from weeds during the season. Its culture is extremely simple. In France, five crops are taken in one season from the same woad field; but our seasons in this country are too short for so many crops.

To manufacture woad for the use of dyers, the leaves are cut when they have attained maturity, and immediately taken to the mill to grind. The mill is like the old fashioned bark mill — a stone turns round in a circular trough; in this trough the leaves are placed, and by the action of the stone reduced to a paste. The whole is then put together in a mass and well beat down with a shovel to make it smooth. In this situation it is left to ferment for about two weeks. It is then well mixed by stirring, and then made into small balls and well dried without wet; it is then fit for use. The process above described is repeated with each successive crop of leaves, and the whole operation is performed under shelter, as no rain must be permitted to fall on the woad at any time after the leaves are cut. In France, indigo has been obtained from the leaves of woad by a process similar to that used in the manufacture of indigo from the Indigofera, or Indigo plant; and some thirty years ago, Gen. Dearborn, of Brinley place, near Boston, Mass., by a similar process, obtained indigo from woad, an account of which was published in a Massachusetts Agricultural Journal of that day. Before indigo was known to the dyers of Europe, woad was their only resort for fast blues, but is now seldom used except in conjunction with indigo, to facilitate the fermentation of the blue vat and assist the disoxygenation of the indigo. J. Ellingwood. — *Gainesville, Wyo. Co., N. Y.*, 1850.

Woad some years ago was considerably used in this country for dyeing, and generally as a base for blues, blacks, and some other colors. The produce is from about a ton to a ton and a half of green leaves. The price varies; but for woad of prime quality it is often from $125 to $150 per ton. The price of an inferior article is much less. It may now be used in the large dyeing establishments. However, we think it has generally gone into disuse. It is not to be found in any of our stores.

To prepare it for the dyer, it is bruised by machinery to express the watery part; it is afterwards formed into balls and fermented, re-ground, and fermented in vats, where it is evaporated into cakes in the manner of indigo. The haulm is burned for manure or spread over the straw-yard, to be fermented along with straw-dung. To save seed, leave some of the plants undenuded of their leaves the second year, and when it is ripe, in July or August, treat it like turnep-seed. The only diseases to which the woad is liable are the mildew and rust. When young it is often attacked by the fly, and the ground obliged to be resown, and this more than once even on winter-plowed grasslands.



YANKEE CORN SHELLER.

The Yankee Corn Sheller is one of the best. It has an iron hopper simply and firmly secured with a double spring to suit all sized ears, with a balance wheel inside. There are two sizes, at $10 and $12. The small size will shell a bushel easily in five minutes. For sale at the Agricultural Warehouse in this city.

THE SCIENCE OF FORCE AND MOTION.

At a recent meeting of the New York State Agricultural Society, says the Scientific American, a report was presented and read by Mr. Delafield, (Vice President,) on essays, experiments and works for schools. Mr. Delafield remarked that the science of Force and Motion was essential and important to the perfection of the farmer's work — that some knowledge of practical mechanics was necessary to a right understanding of the tools used in cultivating the earth, their uses, strength, and proper construction — that the forces of fluids as well as solids, were useful, and needed his study, as facilitating operations in draining, in irrigation, and protecting his soil from injury by running streams — that the common occupation of loading wagons and other farm operations, evidence the need of knowledge of the laws of gravity. With these impressions, it was urged that a premium be offered for the best essay on Mechanics, on the science of Force and Motion, to be divested as far as practicable of technicalities, and illustrating the importance of this branch of science in prosecuting successfully the ordinary pursuits of agriculture.

We learn that the Society determined, at a subsequent meeting, to offer a premium as recommended.

USEFUL RECIPES.

Messrs. Editors:—The following recipes I should be pleased to see published in the Farmer; it would be the means of having them preserved, presuming that most of your subscribers set as much store on it as I do and preserve the Farmer and have it bound at the end of every two years. In this way I consider that I have a book always worth the subscription.

To cure Wounds, Cuts, and Bruises in Horses—Take 1 oz. blue vitriol, 1 oz. Spanish flies, 1 pint of soot; pulverize and mix with 1 lb. of hog's lard. I have made use of the above for a number of years, and find nothing to excel it. Horses receiving severe kicks, or having sore backs, it will heal in less time than anything else I ever tried.

For Sprains, Wind Galls, and Bruises—Take 1 gill spirits of hartshorn, 1 gill spirits of turpentine, 1 gill laudanum, 1 gill sweet oil, 1 oz. camphor, 3 oz. spirits of wine, 1 oz. Castile soap; mix all together. The embrocation formed of the above ingredients I have tried, and find that it will certainly remove wind galls and swellings occasioned by sprains. It will cure blood or bog spavin if attended to in time. I would also say to persons afflicted with rheumatism, give it a trial.

Cure for Ringbone—Take 10 grains sublimate of mercury, 4 oz. spirits of wine, 2 drams tincture of musk, 12 oz. rose water; mix together and rub on the disordered place with a brush, two or three times a day. This I have never given a trial; it is said, however, to have the desired effect.

For Spavin.—Take 1 gill spirits of turpentine, 1 gill aquafortis, 1 gill quicksilver; put into 1 quart of small beer, and let it stand for two days before using. The manner of using is to tie a rag around the end of a stick, saturating it with the mixture, and apply it to the part affected two or three times a day. If it cracks the skin, do not use it so often. A little exercise is necessary.

This latter preparation I have known to effect permanent cures in several instances. Care, however, should be taken in its preparation, which ought to be intrusted to a druggist. Yours, &c., Jas. Patton.
—*Pattonsville, Pa., Feb'y*, 1950.

ADDRESS BEFORE THE JEFFERSON AG. SOCIETY.

We selected several extracts last month from the address of Moses Eames, Esq., before the Jefferson County Agricultural Society, but they were all crowded out, save one. We now make room for further extracts. Mr. E. is President of the Society, and he is one of those who not only talks, but acts. Our subscription list in Jefferson County shows this.

Agriculture, it is natural to remark, is the great business of our country. Whatever other branch may fail to secure attention, this must not be neglected, because, by it, we are sustained, fed, and clothed. Whatever changes the products of the soil may undergo before they arrive at the period of consumption, they must, nevertheless be sufficient for the demand of the country. Here it will be true for years to come as it is now, that the business of agriculture will give employment to five-sixths of our population. As it is the primary source of individual and national wealth and the mother of manufactures, its improvement and success are intimately connected with national independence, if not with national existence. It has a right to demand of the people, State and government the exercise of a most liberal policy on its behalf.

Any thing which tends to enlighten and to enlarge the mind enlisted in agricultural pursuits, develop the resources of the soil, or to throw light upon the best method of cultivation, may constitute a subject worthy of the most enlightened consideration. Especially is this true in a country like ours, where men cultivate with their hands their own fee simple acres, and from these derive, not only their subsistence, but also their spirit of independence and manly freedom. They are at once the proprietors of the soil, its cultivators, and defenders. Its toils, which would be burdensome and unendurable to men of other professions, form but subjects of pastime with them, and without which their habits and morals would be endangered. Then, whatever other subjects of real or seeming interest may be undervalued or overlooked, the cultivation of the earth should hold its rightful supremacy among all the works of a man's hands. With this civilization thrives; without it, man is a savage. If there lives a man who may eat his bread with a conscience at peace, it is unquestionably he who has brought that bread out of the earth by his own honest industry. It is reasonably so.

This employment excites none of those hurtful passions which so often prove fatal to domestic peace and destructive to the enjoyment of the common blessings of life. But, on the contrary, it presents fewer temptations to vicious indulgence and is in the highest degree promotive of health and length of days.

But to attain a healthful prosperity, which should be the endeavor of every farmer, there are certain considerations indispensable to be observed. The first obstacle in the way of successful husbandry is the almost universal attempt at doing too much. Good farming and what is generally denominated a large farming business, are practically incompatible the one with the other. He who attempts to do too much in his profession, trade, or husbandry, will expose himself to the liability of doing nothing well. This is proved by all observation to be emphatically true of the cultivation of the soil, and shows clearly that the true policy is to culitvate no more than can be done in the best manner. Above all, if the object is to obtain the best, and, at the same time, the most profitable crop, the farmer cannot give too much heed to the approved methods of enriching the soil. The various manures constitute the great safety-fund of the farmer. On these, with the ordinary blessing of Heaven, he can safely rely for ample returns for all the labor and money expended in the prosecution of his business. There is, perhaps, not a subject pertaining to agriculture of more vital importance to the farming, community. Without manures, in some form, applied to the soil at suitable intervals, the farmer cannot, by any possibility, succeed in his avocation.

* * * * * * * * *

The lawyer, the accountant, the tradesman, all set their clerks and pupils to put in practice, as fast as they are able, the principles they have acquired. But, still, the idea prevails, that the farmer may educate his son in any other branches than those connected with his business, and afterwards make of him a finished farmer; with a constitution undermined. with foolish prejudies imbibed against manual labor, and too strongly tinctured with the general notions of what constitutes a gentleman, he is expected to enter upon the "rough and tumble" of a farmer's life. As things now are, we are destined to have farmers comparatively uneducated in their business, or *gentlemen* farmers, whose delicate nerves are shocked at the sight of manual labor. Now, I hold that each of these classes is ill adapted to its business; the first, by knowing too little; the second, by knowing too much of that which is of doubtful utility to any one. This class has been furnished by wealthy parents and guardians with the means of obtaining an education without effort or labor on their own part; and to break over the habits of an early education, and especially where taste is averse to the business about which it is engaged, is too generally out of the question. But, in reference to the first class, its education amounts to the simple bigotry of ignorance. It requires but little acquaintance with the farming communities of our country to convince one that this kind of training bids successful defiance to all improvement in agriculture. But shall the children's teeth be set on edge because the parents have eaten sour grapes? Certainly not; there may be schools which shall inculcate right notions of farming. and which shall contribute, in no trifling degree, to raise the character of this occupation to the rank which it should properly maintain: and I do not hesitate to believe and to say that such a school can be established and prosperously maintained in Jefferson County. This County may claim to rank among the first, if not *the* first, in the State in agricultural improvements."

THE SWEET POTATO.

How can the Sweet Potato be kept for seed through our winter till time to plant? and what is the best mode of culture? C. B. Jewell.—*Groton, N. Y.*

Although the sweet potato may never become a general or profitable crop for the farmer to raise for market in this latitude, yet we believe nearly every farmer may raise enough, with little trouble, to supply his own table with this luxury; and those in the neighborhood of cities and large villages might make it a profitable crop. Residents of villages who take a pride in cultivating their own gardens and supplying their tables with the fruits of their own industry and skill, would need no other incentive to give the potatoes a trial, than to see, as we have seen them, rivaling the famed Carolinas, served up on the table of a friend,—the product of his own little garden.

SWEET POTATO. *(Convolvulus batatus.)*

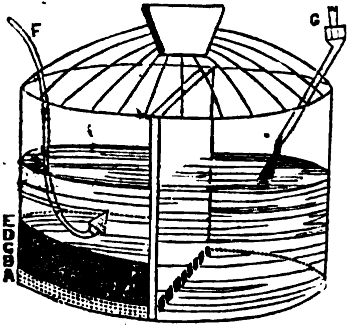
Great difficulty is experienced in preserving the sweet potato through the winter. The general direction given is, to preserve the roots from the extremes of heat and cold, with an exclusion of air and light; but we have tried in various ways to keep them, without success. We have tried them on a shelf in the cellar—in a box of earth—in baked sand;—but in every case have failed to preserve them. A friend in Brighton, in this county, treats them in the following manner, with success. In the fall he plants them in a box of earth and places them with his house plants. In a little while the shoots will show themselves, and when grown enough they are carefully removed by slipping them off without displacing the potato, and planted. They soon take root and form new plants. As soon as the weather is sufficiently warm, (say about the first of June,) these plants are placed in the open ground, according to the directions given in the January number.

Where seed can be obtained in the spring, the better way is to take large potatoes and divide them, as the common potato, and plant in a hot bed. There should be about four inches of mold over the manure. Place the potatoes on this, and cover with about three inches of light earth. As the sprouts appear, draw them, as practiced by our Brighton friend, and plant in your field or garden. If they have the benefit of a cloudy day or a shower about this time, all the better. When treated in this way, a bushel of seed will supply plants for an acre. For the accompanying engraving we are indebted to Allen's American Agriculture.

FILTERING CISTERN.

It has been said that some men dig their own graves with their teeth. It is certainly true that many diseases that afflict our race are caused by improper eating and drinking—improper as to quality, quantity, and manner. And though it is true that water is the least injurious of all liquids taken into the stomach, and is the drink appointed by the Creator for every living thing; yet, we have no doubt that disease and death is often caused by the use of impure water. It enters into every thing we eat. Our bread as well as our tea and coffee are affected by it. This impurity may be so slight and the injury so little as to be imperceptible for a time; but it is the continual dropping that wears the stone, and the *continued* use of impure water must produce permanent injury to the human system. The young and tender tree may be driven to the ground by a sudden blast; but the genial influences of light, warmth, and air, seconding its natural disposition, it will again recover its erect position. Let the same tree be planted where it is subject to the prevailing and almost *constant* western winds, and it will be warped by it—trunk, branches, and foliage driven to the east.

Various filterers have been invented for purifying water by filtering. Most of these have been too troublesome in their operation to be favorably received by farmers. It may be well enough for a man of leisure, whose main business is to do the "*chores*," to be filtering water by the pailful; but the farmer has other duties demanding his time and attention. The best plan for filtering water we are acquainted with, is the one exhibited in the engraving. It is a cistern divided into two parts. G. is the pipe for conducting the water into the cistern; F, pipe connected with pump, for extracting the filtered water; A, B, &c., layers of charcoal, gravel, &c.; the black dots are passages for the water from one part of the cistern to the other. The engraving, with the following description, is from Allen's American Farm Book:



FILTERING CISTERN.

"They may be formed in various ways, and of different materials—stone, brick, or even wood; though the two former are preferable. They should be permanently divided into two apartments, one to receive the water, and another for a reservoir to contain such as is ready for use. Alternate layers of gravel, sand, and charcoal at the bottom of the first, and sand and gravel in the last, are sufficient; the water being allowed to pass through the several layers mentioned, will be rendered perfectly free from all impurities. Occasional cleaning may be necessary, and the substitution of new filtering materials will at all times keep them sweet.

Horticultural Department.

EDITED BY P. BARRY.

PRUNING AND TRAINING OF HARDY GRAPE VINES ON GARDEN WALLS, HOUSES, AND TRELLISES.

At the request of several correspondents we take this occasion to present a few brief hints on the pruning and training of Hardy Grapes, and particularly on garden walls and trellises. On this subject there is a very general lack of information; and this, added to a very prevalent negligence, has heretofore greatly diminished both the pleasure and profit which the judicious culture of this fruit is sure to yield. There is scarcely a garden of any pretension in this city, and very few in the surrounding country, but includes among their fruit trees at *least one* grape vine; but the training and pruning are so imperfect or so entirely neglected, that they are in most cases both unsightly and unproductive. In many instances very tasteful arbors and trellises are erected; but the unskillful and careless manner in which the vines are carried or allowed to run over over them, destroys their effect.

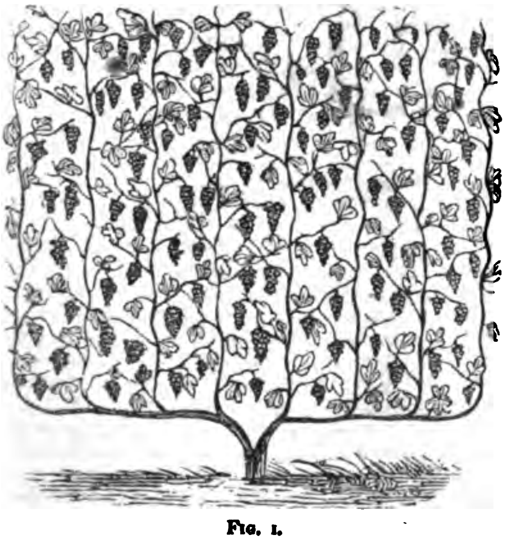


FIG. 1.

Nearly all the complaints that reach us of the vines not bearing, of fruit being small or not ripening well, are attributable to this bad pruning and training more than to defects in the soil; for our native hardy grapes, such as the Isabella, flourish in *all good garden soils* with dry sub-soils. We have not seen an exception.

The management of the foreign grape in our climate, either out of doors or in, requires considerable skill and experience to render success uniform and complete; but the treatment which our hardy native sorts require, is so truly simple that every man may, with a knowledge of a few leading principles and mechanical operations, manage them with as much success as he does a hill of corn or potatoes.

1st. The grape vine should not only be planted in a *warm, dry,* and *rich soil,* but it should have such an exposure to the south or southeast, and its branches be so trained and spread out, that every part may enjoy fully the advantages of light and heat — both indispensable to the maturation of the fruit and the wood. Soft, watery, unripe and unproductive shoots, and sour, unripe fruit, are invariably the results of a dark, northerly aspect, and allowing the branches to ramble in thickets in their natural way.

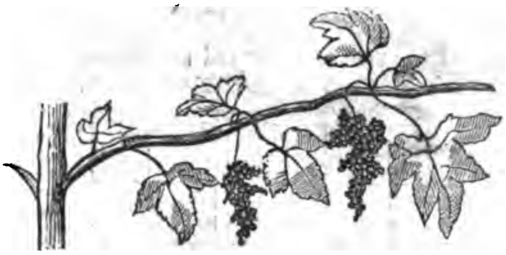


FIG. 2.

2d. During the growing season, the whole force of the vine should be directed to the sustenance of the fruit and the necessary shoots for training and bearing the following year. This point is secured by rubbing or pinching off, early in the season, (May) all superfluous or misplaced shoots. It frequently happens, in vines left to themselves or badly treated, that these superfluous and misplaced shoots, which are or ought to be cut off at the next pruning, destroy the regularity of growth in the vine by attracting an undue amount of the sap to them and stinting the allowance in contiguous parts. Thus vigorous shoots starting from the base of the stem acquire an immense developement at the expense of all the upper and bearing portions. Connected with this is the shortening of the bearing shoots, (in August or September,) by nipping off the extremeties at two or three eyes beyond the fruit. This checks the flow of the sap towards the points, and turns it to the use of the fruit and the shoots necessary for the extension of the vine. These simple attentions constitute the substance of what is called "*Summer Pruning*," and though generally overlooked, are of the utmost importance, as without them we cannot hope for large, well ripened bunches of fruit, nor vigorous mature shoots for the next season. Some people have advised the removal of the leaves around the bunches of fruit, towards autumn, to hasten their ripening; but this is a fatal error. Last season we saw the effects of this on a vine trained on an arbor in the outskirts of this city. A great portion of the leaves had been carefully cut off with scissors by the lady proprietor, who followed some empirical advice, and she had the misfortune to see her fruit all shrivelled up instead of ripened. This was a natural result.

3d. The grape vine produces its fruits on shoots of the current year from the last year's growth. That is, the buds on last year's shoots will next spring produce the shoots that will bear the fruit. Shoots from the older parts of the tree do not bear fruit, and the same shoots bear only once. Fig. 2 shows a portion of last year's wood with a fruit branch produced from one of its buds. It is important to understand this well, as it renders the necessity for a supply of vigorous young shoots quite obvious. We frequently see the lower parts of the main branches, or frame-work of grape vines, trained on houses or trellises, all destitute of young wood, like the lower parts of neglected peach trees. This was caused by either bad or no pruning. The growth went on mainly at the points, and the lower parts were starved out and the best portions of the vine rendered fruitless.

Having touched upon these general points, we may take up training and pruning more minutely. First, in regard to trellises. Many people are in the habit of training vines on the walls of houses; but the practice is bad, both for the house and the vine. It is much better to make a trellis that will stand a foot or two from the wall and be attached to it by brackets. Annexed is the figure of one, the principal bars or frame work of which are boards three inches wide and one and a half inches thick nailed together at the angles. This trellis is intended for one vine, and may be of the height of the wall or house it is intended to cover. The vertical bars are eight in number, to each of which one of the permanent canes or branches of the vine is to be fastened. These are 3 feet apart, and between them, in the center, are rods of No. 12 wire, to which the lateral fruit buds may be attached with strings, or will attach themselves by the tendrills. The first, or lowest, cross bar may be two or three feet from the ground, as most convenient. Rods of wire may also be carried at equal distances between the cross bars, to facilitate the fastening of the lateral shoots.

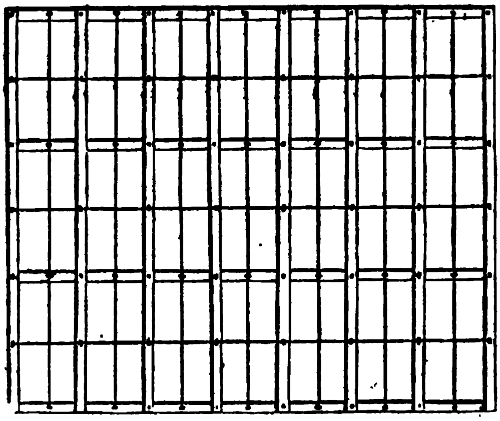


Fig. 3.

The training of a vine on such a trellis as this is a very simple matter, and produces to the sight a most pleasing effect; indeed, it would be a highly ornamental screen for any place where a screen might be wanted, without interfering with either walls or windows. For garden arbors the same mode of training is equally suitable.

This form, as will be seen by figure 1, copied from "Allen's Treatise on the Vine," is that of two horizontal branches, one trained to the right and the other to the left, on the lower bar of the trellis. From these, eight permanent canes or branches are trained on the vertical posts. These are to be furnished all up the sides, at proper distances, with lateral spurs to produce the bearing shoots. To produce and manage a vine in this way, requires some such operations as the following: — Let us take a young vine as it is usually sent out from the nursery—one, two, or three years old. This will either be a single shoot one and a half to three feet in length, or there may be several branches one to two feet long, as the vigor of the plant may be. If one year old — a single shoot — the plant should be cut back, when planted, to within two eyes of the base; and if older, with some branches, all the weaker ones of them will be cut clean off, and the strongest one cut back to the last two eyes of the young wood. These vines, then, are all in the same situation, and are planted at the center of the trellis. When they commence growing, all the shoots but one, and that the strongest, are rubbed off, and this single shoot is trained and allowed to grow uninterruptedly till September, when the top may be nipped off to cause the wood to mature and strengthen. Next February this shoot is cut back to within three eyes of its starting point. These eyes will form shoots. The weakest one must be removed in May, and the two strongest carefully tied up and encouraged till September, when they will be topped as before. By this time these shoots will be vigorous and at least ten or twelve feet long, if the vine be healthy and in a good soil. (Close to where we write, a vine of Isabella last season, second after planting, made a strong shoot fifteen feet long.) Up to this time no fruit should be allowed. With these two shoots we commence the frame-work of the vine. At the February pruning, these shoots are cut back to within two or three feet of their base, and are then tied down, one to the right and one to the left, on the first horizontal bar of the trellis. Each of these will produce two shoots, one to be trained up to the first central post of its division of the trellis, and the other to continue the extension of the vine in a horizontal direction. All the other eyes or buds are cut out at the time of fastening down the branches. During the season, the requisite care will be to keep down all other shoots and to prevent too great a growth of lateral shoots on the young wood. Shoots that are growing in a horizontal direction are more disposed to produce lateral shoots than those that have a vertical or natural direction. The February following, these vertical shoots and the horizontal ones are cut back in proportion to their vigor, say within four to six eyes of the old wood. Each will produce a number of fruit shoots, and two more vertical shoots may be raised to the trellis from the horizontal ones, by the same process as the first year. Care must be taken to carry the leading shoots, for the extension of the vine, upward and outward, by the same system, until the trellis is covered. The vine must not be overtasked with the production of either too much wood or too much fruit. The success of the training depends upon keeping up a vigorous and uniform vegetation in all its parts. This is done by following the suggestions in the first part of these remarks.

To continue farther the treatment of the vine in its annual course, would be merely repeating what we have already said. Some people may think that there is too much system about this, and too much labor involved for them to adopt it. To such we would say, that system in this, as in all things, is necessary. To train a vine over an arbor or trellis properly, nothing short of labor will do; and we know of no system requiring less labor than that we have in part described.

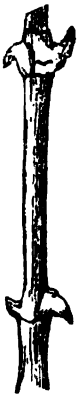


Fig. 4.

Those who wish their vines to grow without training, should plant them near the root of some old tree or in the corner of a rail fence — they have no business with walls or trellises. A modification of this method may be adopted; but in any case it must be remembered that leading shoots must be trained at proper distances for the frame-work, and these must be furnished with the material for bearing; and the training at random is neither satisfactory or safe.

In pruning the vine, and indeed all trees, the knife should be as sharp as a razor, to make a clean cut without the application of a great dragging force, and owing to the softness of its wood and large pith, nearly half an inch should be left between the cut and the bud cut to, (see figure 4;) and in the case of horizontal shoots, the cut should slope downwards. These precautions are necessary to guard the bud from injury.

NORTH AMERICAN POMOLOGICAL CONVENTION.

The proceedings of this Convention, held at Syracuse September 14, 1849, have been published in a neat pamphlet of some sixty pages, containing the discussions on fruits, with reports from J. A. Kennicot of Illinois; Dr. Herman Wendell of Albany; J. W. Knevels, Esq., of Fishkill, N. Y.; Jno. W. Bailey, Esq., of Plattsburg, N. Y.; W. R. Coppock, Esq., of Buffalo; F. R. Elliott, Esq., of Cleveland; F. K. Phœnix, Esq., of Wisconsin; J. C. Holmes, Esq., of Detroit; and C. H. Goodrich, Esq., of Vermont.

Dr. Kennicot's report occupies about one-fourth of the pamphlet, and contains a great amount of local information regarding soil, climate, nurseries, orchards, &c. This, and the very agreeable style of the Doctor, makes it not only the most valuable, but the most readable paper of the whole. Some of his statistics of nurseries in Illinois are certainly surprising, and, as he says, afford the best evidence of what the people of this region are doing in the way of planting orchards. On this point the following extracts will be interesting. He says that "within a space of from fifty to sixty miles north, west, and south of The Grove, (his residence,) there are not less than 50 nursery establishments, twelve of which are in this county and most of the others within twenty-five miles of me." * * "In Kane Co., six nurseries are already established, setting annually 100,000 grafts or more." Mr. Harkness of Peoria, writes him — "We have started 31,000 grafts, 80,000 seedlings for budding, 40,000 stocks for grafting, 200,000 Virginia thorn plants, 350,000 wild orange plants, &c." A Mr. Slater of St. Albans, propagates all his fruit trees, except peaches and nectarines, by *layering*, and sells at 6¼ cents a piece "all round." To these statistics the Doctor adds —

> "It strikes me that we are, at least about here, as they say south, 'running the thing into the ground:' and yet, this one fact speaks volumes for the good taste and intelligence of our inhabitants, and the adaptation of our soil and climate to the cultivation of fruits. Nurserymen are, I believe, always intelligent men, and should be shrewd observers, though I fear we are *not all* good 'business men.' Our 'bumps' of benevolence grow with our trees, and we are very apt to think that we are benefiting ourselves when we are doing good to others. Our 'hope is large;' our fruition small. We create the plant; others eat the fruit, or enjoy the profits. But the practice of our benificent profession humanizes us, and simplifies and refines our tastes, and makes us better and happier, if not richer and wiser men. Why then should we not be satisfied with our share of the good we create?"

There are many points in this report to which we may refer hereafter, when treating of the subjects to which they relate.

NEW FRUITS.

Kirtland Pear.—We find a colored drawing and description of this new pear, by Prof. J. P. Kirtland of Cleveland. It was raised from seed of the Seckel, and is stated to be of medium size, color varying from a dull green to a rich crimson russet. "In point of hardiness and productiveness it far excels the Seckel, and in flavor is esteemed by many as superior." This is a high character, and Prof. Kirtland is good authority.

Kingsley Apple. — Dr. Wendell, in his report, gives an account of a seedling apple originated near Pittsford, in this county, and brought to notice by Dr. Moses Long of this city. It is called "Kingsley," having originated on the farm of a gentleman by that name. The tree is stated to be hardy and a profuse bearer. In 1848, the original tree, growing in a pasture lot, produced thirty bushels of fruit. Tho specimens from which his report was made "were eaten on the 10th of June, and were as fresh and free from defect as when taken from the tree."

Shannon Cherry.—Mr. Elliot gives a description of a valuable Morello cherry originated with Prof. Kirtland twenty years since, but never before described. It is described as larger than the May Duke, of a dark purplish red color, ripening 12th to 15th of July. We have several excellent cherries of the Morello class, ripening long after this.

DECAY OF FRUIT AT THE TIME OF MATURITY.

Mr. Elliott, after speaking of several causes, says that it is not improbable that it is induced by the same causes that produce leaf-blight in the pear and plum, viz: "a want of some material in the soil." Mr. Elliott is so taken with "special manures," that his imagination begins to run wild on the subject. It is very far from being a "fixed fact" that the leaf blight is owing to defects of the soil. We find it a wide spread malady, appearing in various soils, and it is said, in some parts of Europe as well as in this country. We know of no experiments that have established anything of the sort. It is a matter that yet requires careful investigation. But if it were established, how can we suppose that the same cause could affect the ripening fruit of the cherry. A pear tree leaf and a ripe cherry are of very different materials.

A great deal of successful culture depends on giving to particular species of trees their appropriate soil and manure as far as sound experience teaches us; but cultivators must guard against falling into the same error on the "*special*" manure subject that a large portion of the community have suffered themselves to be led into, by "special" or patent medicine compounders and venders.

THE MAGNOLIAS.

P. Barry, Esq. : — *Dear Sir* — I am highly pleased with the article on Magnolias, in the January number of your paper. I had for some time intended to write to you for information respecting the propagation and culture of that interesting family of trees. The Magnolia acuminata is indigenous in this town, and when growing in open ground it forms a beautiful tree, not surpassed by any of our native forest trees. I have frequently transplanted them from the woods, but have never succeeded in making one live. They appeared to flourish for a time, but eventually, in spite of all the care bestowed upon them, they invariably dwindled and died, and without my being able to discover the reason why. Mr. David Thomas of Aurora, stated in the Genesee Farmer several years ago, that he had been unsuccessful in cultivating the Glanca and Tripetela, and that the plants when young required protection in this latitude ; and at a still later period he has said, that on a bed of sand brought more than twenty miles, he had Magnolia Glanca growing in great luxuriance ; all attempts to cultivate them in common garden soil had failed. Now I wish to be informed through the columns of your paper, how to succeed in the cultivation of the Magnolias. What soil and situation do they require ? Where can seeds of the different kinds be obtained that can be depended upon ? And how must I manage with the seed to insure success ? I want all the information in full, necessary to succeed with these invaluable trees for ornamental purposes.

I would like to know if your Taxodium Sempervireus is the same kind with that mentioned by De Candalle as growing near Chapultepec in Mexico, (Cypresus disticha, Linn.,) one hundred and seventeen feet in circumference, and supposed to be several thousand years of age. (See Sears' Wonders of the World, page 324, Art. Chestnut Tree of Mount Ætna.)

Please answer in the March number of your paper. I would like to know as early in the season as a correct judgment can be formed how the new evergreens stand the winter. Yours, &c., J. Ellingwood. — *Gainesville, Wyo. Co., N. Y., Feb'y*, 1850.

The transplantation of the Magnolias from their native situations in the woods, is exceedingly difficult and very seldom attended with success ; and even from nurseries they are more uncertain than most other trees. The chief reason is, that new roots are emitted [illegible] slowly, and only when the trees have not suffered exposure and are planted in a favorable situation. Trees taken from the woods have usually tap roots only, and it is almost impossible to induce in them the emission of fibres. It is the same, as you are no doubt aware, with the Tulip tree, which is closely allied to the Magnolia.

The usual method employed by nurserymen to raise seedling Magnolias, is to plant the seeds as soon as ripe, in shallow boxes, say six to eight inches deep, filled with about equal parts of sandy loam and leaf-mold. The seeds may be covered about one inch deep. The boxes can be wintered in a cellar free from vermin. Another way is, to put the seed away as soon as gathered, in boxes of sand, and let it remain there till spring, (in a cellar.) Then prepare a spot of ground with compost such as we have mentioned, and sow the seeds and cover with a common hot-bed frame. This affords means of protecting the seedlings from the sun and wind, which often kill them in the open ground just when vegetating. Water can also be given, when necessary, in this way. The fierce mid-day sun should not be permitted to fall upon them. The first winter the young plants may be protected with leaves, and in the spring following transplanted into nursery rows. They should have a deep, rich, sandy soil. We find no difficulty in growing all the Magnolias here in common garden soil, when the plants are raised in this way from seed.

The *Taxodium distichum*, or Cypressus of Linn., alluded to, is a deciduous tree. The *Taxodium sempervireus* is evergreen, as its specific name indicates, — quite recently found in California — there called "Red Wood." It attains an immense size.

We will report on the new evergreens at the proper time.

TREATMENT OF PEAR SEEDLINGS.

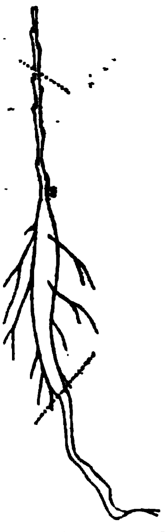
Mr. Barry : — Having some pear seedlings of one year's growth, with tap-roots from 9 to 18 inches in length, to transplant next spring, I thought I would ask thy advice how best to do do it. Would thou recommend cutting off the tap-roots ? (and if so, to what length ?) or would thou prefer the method recommended in "Cole's American Fruit Book," of turning these roots to one side in the manner of planting a grape cutting ? and in either or both cases, would thou head back the tops ? and if so, how much ? (*a*)

I would also ask how best to make and manage a hot-bed for propagating sweet potato plants, and a garden-frame for starting gooseberry, grape, and other cuttings, in the spring ? (*b*)

If thou wilt answer these inquiries through the medium of the Genesee Farmer, thou wilt much oblige thy friend, B. W. Steer. — *Raisin, Mich., 1st mo.*, 1850.

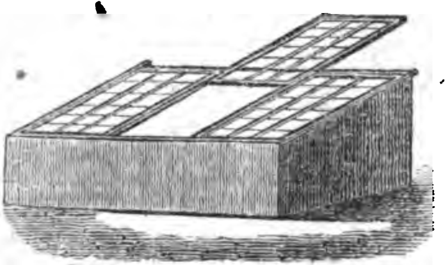
P. S. I cannot close this without alluding to the great interest that is taken in horticulture in this section of the country. I believe that Michigan is yet destined to equal, if not surpass, Western New York in the production of fine fruit. The variety, beauty, and excellence of the specimens of apples, quinces, grapes, &c., &c., exhibited at Adrian during the annual fair of the Lenawee County Agricultural and Horticultural Society, would do honor to any State in the Union. B. W. S.

(*a*) Our practice is to cut off the tap-roots at a point where the size becomes very sensibly diminished, as in the cut. The stocks are not only planted with greater facility, but the emission of lateral roots is favored. In the case of seedling pears, the roots are so large in proportion to the stem that very slight amputations are necessary to reduce them to a balance with the roots. We can give no precise rule, as it depends entirely on the character and size of the plant. Tall, slender plants require more cutting back than stout ones. We are not very particular in the matter. Our workmen usually take them up in handfuls, and with two cuts dress the roots and tops of a dozen to twenty plants, or more, as the size may permit.



Pear seedling pruned ready for planting.

(*b*) A hot-bed frame is simply a rectangular box, of any size you choose to make it. Inch and a half or two inch board may be employed in its construction. The back part should be about double the height of the front. (See cut.) The sashes are usually about three feet wide. The more common size for a hot-bed is nine or ten feet long and five wide, so that three sashes of three feet wide and five feet long will cover it. But you will of course adapt the size to your purpose. Light rafters are placed across from back to front for the sashes to rest on. For propagating sweet potatoes, or anything else that needs artificial heat, a bed of manure three feet or so in depth is prepared, and this frame placed upon it. Fresh stable manure that has been repeatedly turned over, is the best material. Dry leaves may be advantageously mixed, as they modify as well as retain the heat of the manure. For seeds and potato sets, &c., three to six inches of good fine earth is placed over the manure, and when the violent heat has been allowed to pass off for a day or two, the seeds, &c., may be planted. Hot-beds require to be carefully protected from the cold by matts, &c., and the plants require regular and careful watering, shading perhaps, from a very hot sun, and airing in mild days; but in doing this, be cautious.



HOT-BED FRAME.

A frame for your cuttings is but the hot-bed frame we have described; but for such as gooseberries, grapes, &c., you need no bottom heat. Prepare a bed to set the frame on, of light, friable, sandy soil, and in this put your cuttings. In this frame you can plant earlier than in the open ground, and protect them against sudden and injurious changes of the weather. Hot-beds and frames should face the south or southeast.

SELECTION OF STOCKS FOR GRAFTING.

We have a communication from Jas. H. Watts, Esq., on this subject, the substance of which is, "that scions of good sorts should be grafted into trees that assimilate somewhat with the scions in *quality*, *flavor*, and *growth*."

This is, in our opinion, quite unnecessary, and would be at the same time quite impracticable to any considerable extent. We understand Mr. Watts to have reference only to the *re-grafting* of large trees.

We do not dispute but that the stock does exercise an influence on the fruit; but the instances when such an influence is observable are very few, and in the few that are occasionally observed the cause may be found somewhere else than in the stock. It would be wrong to graft *only* on stocks that assimilate in *growth* to the scion. A proceeding quite opposite is in general practice, and is highly advantageous, viz: that of grafting *weak* and *slender* growing sorts on *vigorous* stocks. And stocks the most opposite in more characters than one are frequently resorted to with advantage, for ameliorating or modifying some particular character of the fruit, or peculiarity of the tree in its growth or bearing. What we would counsel, *in all cases*, would be to select and graft *only* upon sound, healthy, and vigorous stocks, whether large trees or small; and that scions, *too*, be chosen from equally sound and healthy trees. Feeble growth, disease, unproductiveness and death may be expected from grafting enfeebled stocks, old or young. Whether the stocks produce sweet or sour fruit, is a matter of little consequence in general; for the country is full of trees producing the most luscious fruit, on stocks the fruit of which in acidity would, to use Mr. Watts' expression, "put vinegar to the blush."

LIGHT IN THE EAST.

In the address of Asa T. Newhall, before the Essex (Mass.) Agricultural Society, we find the following:

> "We cannot prolong the existence of any particular kind of fruit, by engrafting from old into young trees, beyond the natural life of the original tree, or the time it would cease to bear by old age, if living." * * "We might as well undertake to renew the age of an old cow by turning her into a new pasture, as the age of any species of fruit by grafting into young trees."

It is certainly surprising to find, at this day, such doctrines inculcated in an Agricultural address, within speaking distance of Boston. We apprehend that even in Massachusetts there is a great deal of the philosophy of culture to be learned. There can not be a more absurd notion entertained than that in the above extract. Every man who is at all familiar with the history of our cultivated fruits, knows that many varieties that are now, to all appearances, in the full vigor of youth, originated many generations ago. A peach tree will not, under the most favorable circumstances, live and bear over forty or fifty years, and few attain that; and yet we have varieties much older than that as healthy and vigorous as ever. The parent trees of many of our best apples and pears are long since dead of age, but the young trees propagated from them are at this moment in youth and vigor. See even in the case of *annual* plants — the petunia is a familiar instance — we sow the seeds in the spring, the plant grows, blossoms, produces seed, and dies the same season; but if we take cuttings of this plant while growing, keep them in a house over winter, and put them out again in the spring, they will blossom as freely and profusely as the parent; and we may in this way perpetuate that plant for any length of time. So in case of all fruit and ornamental trees, shrubs and plants cultivated by budding, grafting, layering, and other means of propagation, properly performed, we can perpetuate them to an indefinite period. It is unskillful and careless culture, and vicious systems of propagation, that produce deterioration, attributed erroneously to old age.

Pruning the Peach.—Those who intend to pursue the system of pruning the peach recommended in our February number, and who have not done so already, must remember that there is no time to be lost. It should be done at once. We are happy to learn from our correspondents, that the subject is attracting particular attention at this time.

ANSWERS TO CORRESPONDENTS.

A. W., *Marcellus*.—You are in error, regarding the production of different sorts of fruit on the same graft in consequence of the flowers having been fertilized by another variety. The effects of the fertilization, or crossing, would be developed only in the productions of the seed. The russety apple you found among your Greenings was nothing but a Greening; the russety character had been acquired from some particular cause that could not probably be explained; such instances occur frequently. So with all fruits. You will therefore excuse us from publishing your communication.

In regard to the blighted pear tree referred to, the fact was no doubt as you state; for if the whole bark had been *dead*, the tree could not have been saved. The reason is so obvious as to require no comment.

☞ We wish our friends and correspondents to bear in mind that we cannot appropriate our limited space to the discussion of wild theories. We would be pleased, now and again, to take them up, but we must deny ourselves the pleasure. We believe that we shall best consult the wants and wishes of those who read this paper, by devoting our few columns to the plain exposition of *sound practice*.

Ladies' Department.

A GOSSIP WITH THE LADIES.

The people and Legislatures of several States are talking pretty seriously about Agricultural Schools and Colleges. Let us talk a little on a subject of equal importance — the education of the fair daughters of our land for the responsible duties of life. It may be said, and truly, that the females of this land are better educated than those of any other country, and that the studies pursued in our female seminaries are of a more solid character than those of similar seminaries in Europe. We grant all this; and still we say that the system of female education is defective — more than this, destructive to the health and consequent happiness of thousands, — making the "sweet home" a home of anxiety, disease and wretchedness, and filling many an untimely grave. You may consider this rather a severe and random assertion; but it is too strictly and too fearfully true.

Travel our country over. Look at the young mothers of our land. Are they pictures of health and vigor, or of infirmity and disease? Does the bloom on the cheek denote that the blood is playing healthfully through the veins, or does the sallow complexion and shrunken features show that the purple tide pursues slowly and unwillingly its sluggish course? Does the sparkling eye exhibit the buoyancy of the feelings — is the joy of the heart shown through these windows of the soul; or is the melancholy, sunken eye, the index of a sad heart? Mr. Colman, in his European tour, was surprised at the health and consequent buoyancy of spirits of the English women — the mother the equal of the daughter in health and vigor. On the contrary, the wan and faded appearance of American women is remarked by all travellers. The celebrated De Tocqueville spoke much on this subject. Miss Beecher says — "An English mother at thirty or thirty-five, is in the full bloom of perfect womanhood; as fresh and healthful as her daughters. But where are the American mothers who can reach this period unfaded and unworn?"

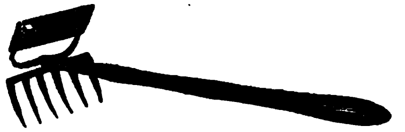
How few reach this period of age without suffering from head-ache, tic dolereaux, diseases of the spine, and other nervous diseases so common to the women of this country. We might show the extent of this evil more fully; but, as it will be admitted, we think, that the health and beauty of American ladies are but short lived — that they are peculiarly liable to nervous diseases, destroying their own happiness and the happiness of their families, — and finally life itself — it will be more profitable that we should point out the cause and the remedy.

The cause commences in the cradle, and too often ends in the grave. In infancy, the mother is afraid to have a little of heaven's fresh and balmy air breathe upon her child. Before the child is of proper age it is sent to school — its mental faculties taxed to their utmost capacity, and but little time or opportunity given for the development of the powers of the body by air and exercise. It grows up like a house-plant that has been deprived of light and air — weak and puny. The seeds of future suffering, perhaps early death, planted in its frame.

The child is become a young woman; and never having been accustomed to out-door exercise, she has no relish for it, — indeed, custom and fashion are opposed to it. A romp on the green — laboring with the hoe and spade among the weeds and flowers, would be decidedly vulgar, and show a want of refinement. Walking a mile or two every day would be an outrageous imposition — father or brother must "harness up." The young lady must sit in the rocking-chair and read silly novels, exciting the imagination at the expense of the heart and health — attend balls, and "dance all night" for exercise, feed on pickles, sweet cake, and other indigestible trash, when the stomach should be at rest, and the whole body enjoying "nature's sweet restorer, balmy sleep." Young women thus grow up with impaired constitutions; and when active life with its cares and responsibilities comes upon them, they are unequal to the task, fall victims to their own and their parent's folly, and either drag out a miserable life, or fill an early grave. "The delicate and feeble appearance of many American women," says Miss Beecher, "is chiefly owing to the little use they make of their muscles. Many a pale, puny, shad-shaped girl, would have become a plump, rosy, well-formed person, if half the exercise afforded to her brothers in the open air had been secured to her during childhood and youth."

The remedy, then, is exercise, and exercise out-of-doors. The health of children must not be sacrificed to books. No over-anxiety of the parent must be permitted to bring on these very evils the parent dreads. Children love exercise — it is natural for them, and necessary to the development of their bodies — and they will have it, if not prevented by their parents. But exercise must not end with childhood. Our young ladies must walk, ride, and work in the open air. Never mind a little tanning in the sun and wind — health and comfort are cheaply purchased even at the expense of a fair complexion. By riding, we don't mean riding in a spring buggy with a cushioned seat — but horse-back. Saddle the horse yourself, young woman, and ride three or four miles every day. Or you can ramble through the woods and over the farm and fences. And have a garden — cultivate roses and carnations, and phloxes, and shrubs — and take good care of them. It will afford you exercise and pleasure; it will teach you more of nature than a thousand novels.

We had got thus far, and was about bringing our gossip to an end, when we were presented by Messrs. Rapalje & Briggs, of the Genesee Agricultural Warehouse, with a *Ladie's Floral Rake*, a cut of which we give. We would willingly make a present of it to any of our fair readers who would make a good use of it.



This rake is a useful article for working among flower-beds, and as beautiful as it is useful, with a black walnut handle, and might be handled by a lady without mittens. The neat and tasty manner in which Garden Implements for ladies are got up at the present day, is enough to tempt any lady to try her hand at gardening.

Mothers, learn your children to love gardening — allot them a patch of ground for their own garden — get them such little implements as will entice them to work. It will do more to save them from years of suffering than all the drugs and sugar-pills in the universe.

Youths' Department.

AGRICULTURE.—No. 2.

In our last number we endeavored to give some information to the youth, on THE NATURE OF CROPS. We stated that all vegetable substances consisted of *two parts*, one called the ORGANIC and the other the INORGANIC—the *organic* part being that which is *burned away* when any vegetable substance, such as wood or straw, is set on fire; the *inorganic* part being that which remains (the ash) after the wood or straw is burned. The ORGANIC part, (or that part which is burned away,) we also told you was composed of *carbon*, *hydrogen*, *oxygen*, and *nitrogen*; and we shall now try to give you some idea of the INORGANIC. But you must not think, because we spoke of the organic part as being *burned away*, that it is *destroyed*. We can destroy nothing. We cannot destroy a stick of wood or a corn stalk. We may *change its form*—we may, indeed, cause the greater part to vanish out of our sight; but it is not lost, and is restored again to the earth. That omnipotent power that formed the first blade of grass, is alone able to destroy it.

The INORGANIC part of plants consists of *potash*, *lime*, *magnesia*, *soda*, *oxide of iron*, *oxide of manganese*, *sulphuric acid*, or oil of vitriol, *phosphoric acid*, *silica*, and *chlorine*.

Potash is a white powder, and is obtained by washing wood ashes and afterwards boiling the liquid to dryness. It is an *alkali*, with a hot, acrid taste, having the power of neutralizing, or destroying acids. Those boys who have eaten hot biscuits and happened to get a lump of saleratus in their mouths, know something of the taste of an alkali. When strong, it attacks all organic matter, dissolving and disorganizing them, and forms a compound with fat, called soap. It is to procure the potash that the farmer's wife washes or leaches ashes to make soft-soap.

Lime, the appearance of which all are acquainted with, is obtained by burning common lime-stone. It has a strong tendency to combine with water. This you can see by pouring water upon it, which it eagerly drinks up and becomes *slaked*.

Magnesia is a white powder, and is called in the drug-stores, calcined magnesia. It is a tasteless, earthy matter, and is found in some parts of the world forming rocky masses and veins. It is obtained chiefly from magnesian lime-stone and from sea water.

Soda is manufactured from sea-salt. It is a chrystalized substance, but becomes dry and powdery on being exposed to the air.

Oxide of Iron is iron-rust. When iron is exposed to the air, it becomes covered with rust. This is caused by the iron attracting oxygen gas from the atmosphere, and this is the reason it is called *oxide of iron*.

Oxide of Manganese has the appearance of iron-rust, and is found in plants only in small quantities.

Sulphuric acid, or oil of vitriol, is a very sour, burning liquid. A piece of straw put into it will be found to be burned black. It is made by burning sulphur. BOUSSINGAULT says that some of the streams which come from the volcanic regions of the Andes are rendered sour by this acid. It exists in gypsum and alum.

Phosphoric acid, like oil of vitriol, is very sour, and will corrode and destroy vegtable substances. It is formed by burning phosphorus in the air. Phosphorus is the substance that causes the common friction matches to take fire so readily. If you rub a friction match so as to cause it to take fire, you will notice that it burns for a short time with a white flame, and a white smoke arises. This white flame is the burning of the phosphorus, and the white smoke is phosphoric acid.

Silica is the name given by chemists, to flint, rock-crystal, and sand-stone. It is one of the most abundant substances in nature. It exists abundantly in almost all soils, and is found in the ashes of all plants, without exception. Glass is made of *silica* mixed with potash, soda, or lime, and heated until it melts.

Chlorine is a kind ot air of a greenish yellow color, and a strong, suffocating smell. It is nearly two and a half times heavier than common air, and therefore may be readily poured from one vessel to another, (as seen in figure 3.) It exists in large quantites in common salt. If you take a little dry chloride of lime and put it into a tall glass, (figure 3,) and pour upon it strong oil of vitriol, chlorine gas will be given off, and fill the lower part of the glass. You can then see its properties, and pour it from one glass to another.

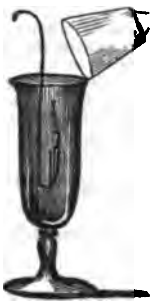


FIG. 3.

These substances are all to be found in the ashes of our usually cultivated plants. Some plants leave more ash than others, and these substances exist in different proportions in plants. In our next we shall speak particularly of this subject. Having now given the elements of plants, we are prepared to apply these facts; for the knowledge we thus gain will be of little benefit, unless we apply it to useful purposes.

MARCH.

BY W. C. BRYANT.

THE stormy March is come at last,
With wind, and cloud, and changing skies;
I hear the rushing of the blast
That through the snowy valley flies.

Ah! passing few are they who speak,
Wild, stormy month, in praise of thee;
Yet, though thy winds are loud and bleak,
Thou art a welcome month to me.

For thou to northern lands again,
The glad and glorious sun doth bring,
And thou hast joined the gentle train,
And wear'st the gentle name of Spring.

And in thy reign of blast and storm,
Smiles many a long, bright, sunny day,
When the changed winds are soft and warm,
And heaven puts on the blue of May.

Then sing aloud the gushing rills
And the full springs, from frost set free,
That, brightly leaping down the hills,
Are just set out to meet the sea.

The year's departing beauty hides
Of wintry storms the sullen threat;
But in thy sternest frown abides
A look of kindly promise yet.

Thou bring'st the hope of those calm skies,
And that soft time of sunny showers,
When the wide bloom on earth that lies,
Seems of a brighter world than ours.

Editor's Table.

Correspondents must not be discouraged because their communications are not published as soon as received. We have quite a number reserved for future publication. Several answers to Correspondents are also deferred.

* * *

Agricultural Books for School Libraries. — We have been requested to call the attention of Trustees to the propriety of purchasing Agricultural Books for School Libraries. We think the bare mention of the matter will suffice. We will not insult the intelligence of Trustees who are Farmers, by attempting to show the propriety of this course, or urge upon them the performance of this duty. We have a good assortment of Agricultural Books for sale at our office — the best works published. In our next number we will give a full list, with prices.

* * *

Merino Sheep. — We had the pleasure of examining a fine lot of Merino Sheep, on their way from Vermont to Chautauque County, in this State. They were owned by **A. S. Patterson**, of Perry Center, Wyoming Co., and **J. D. Patterson**, of Westfield, Chautauque Co. They were selected from the flocks of **Edwin** and **William Hammond**, of Middlebury, and **Jesse Hinds**, of Brandon, Vt.

* * *

Monroe County Agricultural Society. — A meeting of the Executive Committee of this Society will be held at the Office of the Genesee Farmer, on Wednesday, the 13th of March, at 11 o'clock A. M. The President requests us to ask a general attendance of the Committee.

* * *

Stockbridge Mechanical and Agricultural Association. — We have received the proceedings of a meeting held at Stockbridge, Madison co., N. Y., for the formation of an Association with the above title, with the Constitution, and Officers elected. The object of the Association is "the mutual improvement of its members in their occupations." **John Potter**, Esq., is the President of the Association. May success attend so worthy an enterprise.

* * *

Fowls. — Those who have addressed inquiries to us on the subject, are informed that we have taken measures to supply all who wish, with the improved breeds of fowls.

* * *

Horticultural Society.—At the annual meeting of the *Horticultural Society of the Valley of the Genesee*, held in the city of Rochester, Feb. 4, 1850, the following gentlemen were elected officers of the Society for the ensuing year:

President — **Levi A. Ward**, of Rochester.
Vice Pres'ts — 1. **Samuel Miller**, 2. **Mathew G. Warner**, of Rochester; 3. **Henry P. Norton**, Brockport; 4. **J. J. Thomas**, Macedon; 5. **Asa Rowe**, Sweden.
Corresponding Secretary — **Dellon M. Dewey.**
Recording Secretary — **Joseph A. Eastman.**
Treasurer — **James H. Watts.**

Committees: *On Fruits* — Patrick Barry, Mathew G. Warner, J. W. Bissell, Samuel Moulson, Samuel Miller, James Buchan, John J. Thomas, James C. Campbell, Elias Pond, Isaac Hills, W. R. Smith, and Lyman B. Langworthy.

On Trees, Shrubs and Flowers — Geo. Ellwanger, Charles J. Ryan, Francis Brown, jr., D. W. Powers, William King, and Henry Billings.
On Vegetables — James P. Fogg, Jason W. Seward. John Rapalje, James Vick, Jr., and Samuel B. Dewey.
On Botany — Leander Wetherell, Chester P. Dewey, Geo. H. Smith, J. W. Seward, and J. M. Whitney.
On Entomology — Chester Dewey.

Executive Committee — Levi A. Ward, Samuel Miller, Patrick Barry, Geo. Ellwanger, James P. Fogg, L. Wetherell, and Chester Dewey.

We are happy to be able to add, that the Society is in a hopeful situation, and that measures have been adopted to extend its influence and usefulness during the ensuing year.

J. W. Seward, Esq., an active member and supporter of the Society, and a very skillful and successful amateur Horticulturist, has been appointed a committee to solicit a more general co-operation of our citizens with the Society, in order that it may the more effectually carry out its future plans of usefulness. It is contemplated to have weekly or monthly exhibitions, during the ensuing season.

DESTRUCTION OF CANADA THISTLES.

We have now before us about twenty communications from Farmers, giving their experience in subduing the Canada Thistle. All can see the impossibility of publishing them entire in our limited space; and also, the impropriety of doing so, even if we had room, as the practice of many perfectly agree — consequently the publication of these communications would be "a twice told tale."

Charles Hanford, of Alabama, N. Y., has cleared his farm of 100 acres entirely of thistles. He gives his plan:

"I plowed the patches of thistles in July one week, dragged the ground in another week, plowed it again, and so on, three times. The next year, made a summer-fallow and plowed through those patches, and after sowing the wheat a few thistles came up. I had a chissel with a handle two feet long, and dug up every root that was seen. In the spring, the wheat being five or six inches high, chisseled out all that was seen. After harvest, I also chisseled out some near stumps and stones, that the plow missed; and next year the land was clover pastured, so that when I salted my cows, if any I could not get at with my chissel, I put on salt. Next year I drew off the stone, dug up the stumps, and sowed it to wheat. A very few thistles I chisseled out, and for seven or eight years have not seen one; and have done so with every field on my farm. I am now clear of all bad weeds."

S. H. Swetland, of Clifton Park, Saratoga Co., N. Y.:

"In the summer of 1848, I summer-fallowed one half of a lot that had become badly infested with this troublesome and obnoxious weed. The other half of the lot was sown to oats. The summer-fallow was plowed in the early part of June, and then again about the middle of July. In the fore part of September the whole lot was plowed and sown with rye. When the rye was harvested, the oat ground was unusually full of thistles, and on the fallow scarcely a thistle was to be found. The ground was ordinarily dry when plowed, and the thistles of a rank growth. This may operate so again on other pieces, and it may not. Summer-fallowing is the only way of success from plowing."

Alvin Wilcox, of West Bloomfield, N. Y.:

"My first effort was with a good sized patch. I dug small holes where every spear stood, and filled them with fish brine. The next spring they came up as vigorously as ever. I then took boards and spread all over them, and battened the cracks with another tier, putting on stone and rails to keep them down. The thistles kept growing, under the boards, and working through every crevice they could find; but I kept them under. In July they all turned black, and there has been no Canada thistle there since. Having succeeded with them, I have adopted the following plan since. In the spring, when they are a few inches high, I take a stone and pound every thistle down, and lay a stone on it. Every week or two, I examine them and keep every spear covered up. If the work is done thoroughly, I have never had it fail to destroy them by the middle of August."

Moses C. Crapsey, of Lockport, N. Y.:

"The way to kill Canada thistles is by plowing and digging. There is no mistake about this. I have tried it more than once. It only needs to be well done."

M. R. Vincent, Half-Moon, Saratoga Co., N. Y.:

"Take a field of green sward, full of Canada thistles, and plow it thoroughly once a month, from May or June until August, choosing the wettest time for the operation. I have tried this with good success, and my neighbors also. If the plowing is done well it is sure death to every one of them."

Wm. Parsons, Jr., Millville, Orleans co., N. Y.:

"I had nearly an acre of thistles, which had been spreading for a number of years. About four years ago I resolved to try an experiment, to subdue them. I planted the field to corn. When the corn was up big enough to hoe, the thistles also were up as high as the corn. I hoed them well, and from that time, once a week, went through them with the hoe, taking pains to destroy every thistle above ground. When the corn was fit to cut up, we had a heavy crop of corn, and not a thistle to be seen. I have since tried the same process, with equal success."

We shall give further extracts from letters on this subject in our next.

* * *

Improved Stock. — A communication from **A. Stevens**, of New York, in reply to **S. P. Chapman**, is deferred till next month.

TO COMPETITORS FOR OUR PREMIUMS.—The competitors for our Premiums stood as follows, on our books, on the 15th of February—arranged according to the numbers sent, commencing with the highest:—

Joseph Watson, Clyde, N. Y.; E. C. Bliss, Westfield, N. Y.; J. H. Stanley, Le Roy, N. Y.; E. Howland, Mechanicsville, N. Y.; John Davis, Clarkston, Mich.; Moses Eames, Rutland, N. Y.; Wm. Knox, Waterloo, N. Y.; John B. Dolsen, Chatham, C. W.; Orrin Bishop, Dundee, N. Y.; Allen Hale, East Smithfield, Pa.; A. Conkey, Mt. Morris, N. Y.; Silsby & Keeler, Seneca Falls; R. A. Woodcock, Oxford, C. W.: A. Franklin, Honeoye, N. Y.; James Fraser, York, N. Y.; B. Coddington, Jr., Benton, N. Y.; Dr. Dow, Marion, N. Y.; O. C. Comstock, Marshall, Mich.; J. Wykoff, Romulus, N. Y.; Apollos Kent, Amboy, Ohio; Lyman Strobridge, Trumansburgh, N. Y., L. L. Pratt, Fredonia, N. Y., C. Hubbard, Adams Center, N. Y.; Isaac Minard, Hume, N. Y.; John G. True, Castile, N. Y.; Jas. C. Robinson, Penn Yan, N. Y.; Jas. Macomber, Farmington, N. Y.; J. H. Bailey, Perry, N. Y.; T. S. Cowles, Springfield X Roads, Pa.; Peter Himrod, Lodi, N. Y.; R. Craig, Portersville, Pa.; W. H. Pattison, Saline, Mich.

Rare Evergreen Trees.

WE have on hand a fine stock of

DEODAR, or *Indian Cedar;*
AURACARIA, or *Chili Pine;*
CEDAR OF LEBANON;
ABIES MORINDA, or *Himalayan Spruce;*
PINUS EXCELSA, or *Lofty Pine;*
PINUS CEMBRA, or *Cembran Pine;*
CRYPTOMERIA JAPONICA;
TAXODIUM SEMPERVIRENS;

and many other species, all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March, 1850.

The American Fowl Breeder.

A NEW AND VALUABLE BOOK; Containing full information on Breeding, Rearing, Diseases, and Management of

DOMESTIC POULTRY;

By an Association of Practical Breeders.

The above valuable book is just published by JOHN P. JEWETT & CO., Cornhill, Boston; and it is offered at the extremely low price of

25 CENTS PER COPY,

to bring it within the means of every man interested in Poultry.

☞ WE WANT 100 GOOD FAITHFUL AGENTS, to sell this Work in every County in New England, New York, Pennsylvania, and the West; in connection with

COLE'S AMERICAN FRUIT BOOK,
AND
COLE'S AMERICAN VETERINARIAN.

Active and intelligent men can make money at the business.—Address, *post paid*, the Publishers, JOHN P. JEWETT & CO.,
CORNHILL, BOSTON.

P. S.—*The American Fowl Breeder* is done up in thin covers, and can be sent to any part of the country by mail. Any person sending a quarter of a dollar by mail, *post paid*, shall receive a copy of the work. [3-2t]

Farm Wanted.

A FARM of about fifty acres of land, with a dwelling house within five to eight miles of Rochester. The land must be of good quality—mostly cleared—accessible by good roads—in an elevated and healthy situation, and possess living springs of water. Price not to exceed forty dollars per acre. The whole purchase will be paid in cash, if required.

Apply, (if by letter, *post paid*,) to Messrs. Ellwanger & Barry, of the Mount Hope Nurseries, or to James Vick, jr., Esq., at the Genesee Farmer office, Rochester.

Doct. A. A. Morgan, Dentist,

WOULD respectfully announce to his friends and former patrons, and to the citizens of the surrounding country, that he can be found at the old stand of Beers & Morgan, corner North St. Paul and Main streets, ever ready to attend to their calls in that style so universally admired. He would also solicit the continuance of that patronage so liberally bestowed in years past. He will, on the shortest notice, furnish plates from one to an entire sett, on fine gold, and fill decayed natural teeth so as to preserve them during life. To the Profession, he would beg leave to state that he has constantly on hand an article of gold and tin foil, beaten expressly for him by a Philadelphia House, which cannot be surpassed. It is put up in $4 books, so that it can be safely mailed to any part of the State or Union; also, a good assortment of teeth, which he is selling at New York prices. ANSEL A. MORGAN.

Rochester, February, 1850. [3-tf.]

DOWNING'S LANDSCAPE GARDENING.

Fourth Edition, Revised and Enlarged.

A TREATISE ON THE THEORY AND PRACTICE OF LANDSCAPE GARDENING,

ADAPTED TO NORTH AMERICA,

With a view to the improvement of Country Residences. Containing Directions for laying out Grounds, &c. Fourth edition, enlarged, revised, and newly illustrated.

BY A. J. DOWNING.

One volume 8vo., cloth, pp. 350.

"Downing's Landscape Gardening is a masterly work of its kind."—*Loudon.*

"This work has convinced us that sound criticism and refined taste and art are not confined to this side of the Atlantic."—*London Art Journal.*

"The standard work on this subject"—*Silliman's Journal.*

"There is no work extant that can be compared, in utility, to Downing's on this subject. It is not overlaid with elaborate dissertations and learned disquisitions, like the English works, but is truly practical."—*Louisville Journal.*

"Mr. Downing's works have been greatly influential in recommending among us that life which always seemed to us the perfection of human existence—the life of men of education living upon and cultivating their own farms."—*N. Y. Courier & Enquirer.*

HINTS ON PUBLIC ARCHITECTURE.

PREPARED ON BEHALF OF THE BUILDING COMMITTEE OF THE SMITHSONIAN INSTITUTION.

BY ROBERT DALE OWEN.

A large quarto, elegantly printed, with 113 illustrations, in the best style of the art. pp. 600.

"The most comprehensive and elegantly illustrated treatise on architecture that has yet appeared in this country."—*Boston Transcript.*

"A truly admirable work—creditable alike to the Institution, the editor, and to the publisher."—*Pennsylvania Inquirer.*

"The subject of which it treats is one of vast importance to our people, in its economical not less than its ornamental relations; and it is presented here in such a way as can not fail both to gratify and instruct."—*Philadelphia North American.*

G. P. PUTNAM,
Publisher, &c., 155 Broadway, New York.

☞ A large assortment of works on Botany, Gardening, Agriculture, Farming, &c., always for sale, which will be found enumerated in the General Catalogue published by G. P. Putnam, which can be had *gratis* on application.

March, 1850. [3-1t]

To Fruit Growers and Nurserymen.

SPRING OF 1850.

THE SUBSCRIBERS invite the attention of tree purchasers to their stock now offered for sale. By large importations from Europe, and an extensive scale of propagation in their own grounds, they are enabled to offer one of the most extensive and complete assortments, and on the most liberal conditions.

The well known health, hardiness, and vigor of the trees grown here, and the undivided and scrupulous attention given to every department by the proprietors in person, offer great inducements to purchasers.

Standard Fruit Trees.
Pyramidal and Dwarf Fruit Trees.
Gooseberries, Currants, Strawberries, &c.
Ornamental Trees and Shrubs.
Roses, Dahlias, &c.
Hedge Plants, (including large quantities of Buckthorn and Osage Orange.)
Stocks for Standard and Dwarf Trees.

And all other Nursery Articles, besides a large collection of GREENHOUSE, BORDER and BEDDING PLANTS. Wholesale priced lists sent gratis to all post-paid applications. A separate Catalogue for 1850, of Roses, Dahlias, and other new and rare articles will be also furnished.

ELLWANGER & BARRY.
Mount Hope Garden & Nurseries, Rochester, N. Y.
February 1st, 1850.

Ellwanger & Barry

WISH to say that the only traveling agents authorised to do business in their name, are ROBERT BLAIR, HIRAM BECKER, and HENRY COLLINS.

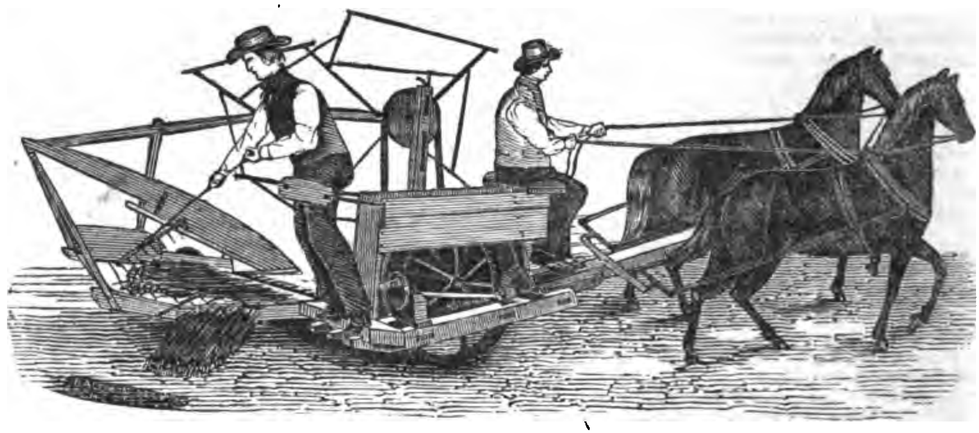
They feel compelled to make this announcement in consequence of other persons representing themselves as their agents.

Mount Hope Garden and Nurseries,
Rochester, N. Y., March, 1850.

For Sale.

TWO Short Horned Bull Calves, one year old in April next. In color one is red, the other red with some white, both descended from the Bull "Yorkshireman," bred by the late THOS. BATES, Esq. *Letters of inquiry, post-paid,* will be attended to.

Auburn, Jan. 11, 1850. [2-2t] J. M. SHERWOOD.



SEYMOUR & MORGAN'S

IMPROVED REAPING MACHINE,

MANUFACTURED AT BROCKPORT, MONROE CO., N. Y.

THE subscribers are preparing to offer to the Farmers a superior REAPING MACHINE. Having for years been engaged in manufacturing a large number of *McCormick's Reapers*, they are confident that the Reaper which they are now manufacturing is far superior in every respect to any other now in use. It was thoroughly tested in the harvest fields last year and gave entire satisfaction to all who witnessed its operation. It surpasses any machine now before the public in many important points;—the *Cutter* or Sickle being in sections, in case of accident can be repaired by a good Blacksmith, without the owner being obliged to go to the manufacturers for a new blade. The ground wheel is 3 ft. in diameter, and all the geering runs in iron boxes. An early order is important from those wishing to purchase a machine, as we have already contracted for the sale of 300 for the West. In all cases a liberal warrant is given to the purchaser.

The improved Reaper was constructed under the supervision of our Foreman Mr. Geo. F Burnet, who has been engaged three years for us in the business. SEYMOUR & MORGAN.

Brockport, December 25, 1849.

CERTIFICATES.

Sweden, Nov. 12, 1849.

Messrs Seymour, Morgan & Co.—In my harvest, last season, I used one of your Improved Grain Reapers. I had formerly used one of McCormick's Improved Virginia Reapers, I have had considerable knowledge of them. In comparison, I think yours decidedly preferable; firstly—in point of perfection in cutting, which is the great desideratum, it is far in advance of his, and next, in ease of operation, I think it has decided advantage. I did not obtain your Reaper until a large part of my harvest was completed; consequently I had not an opportunity to test the amount that could be cut in a day, still I am satisfied that it is capable of cutting from fifteen to twenty-five acres per day, and that, too, in the most perfect manner. I used no change of team. I did not find it necessary in doing an ordinary day's work—about fifteen acres per day. I tested your machine in wet grain and when there was grass at the bottom; here I found it had a great advantage over other Reapers in use, it being able to go through almost any grain, some badly lodged, without any apparent difficulty of clogging the knife. And from my experience I think it a valuable labor-saving-machine, and would cheerfully recommend it to the attention of farmers, as I think grain can be cut with it, all expenses counted, at half the cost of cutting it the ordinary way.—Wheat can be bound and shocked in a better manner, and with less labor, besides a great saving in the waste of grain.

Yours &c. F. P. Root.

I saw the aforesaid, Seymour & Morgan's Improved Reaper, in F. P. Root's harvest field and do concur in the foregoing statement.

Wm. Root, Esq.
D. H. Root.

I have seen the Machine work in very heavy, and also in wet wheat where it performed well, and believe it to be an improvement upon McCormick's Reaper. There was no clogging, as in the case of McCormick's and it must be a good machine if well made. Nathan Locke.

Brockport, Nov. 18, 1849.

Messrs. Seymour & Morgan:—Gents—I used one of our Improved Reapers in my harvest, which worked better than any I have seen before used—cutting wheat when there is much grass, without choking, which other machines that I have used would not do.—I have had much experience with Reapers—having purchased the first one of McCormick's brought to this State. I have since put a large number of McCormick's in operation at the West, and believe yours to be the most perfect Reaper now in use.

A. Chappell.

I used one of Messrs. Seymour & Morgan's Reapers last harvest, and cheerfully recommend it to Farmers as the best machine within my knowledge for cutting grain. Geo. H. Allen.

Brockport, Nov. 18, 1849.

This may certify that I used in my harvest of 1849, Seymour & Morgan's Improved Reaper, which worked to my entire satisfaction; cutting grain in all conditions. I believe it cannot be clogged in either grassy or green wheat. I have witnessed the operation of other Reapers now in common use and I believe it to be superior to any that I have seen—cutting wet or grassy wheat where other Reapers cannot. F. W. Brewster.

Brockport, Nov. 12, 1849.

We have seen the trial of Seymour & Morgan's Improved Reaper in the harvest of F. W. Brewster—and having witnesed the operaton of other Reapers, we believe this the most perfect machine now in use.

J. A. Holmes,
D. A. White,
Morgan Randle,
Allec Potter,
W. Theo. Downs.
O. A. Royce.

Seneca Lake Highland Nurseries,

CATHARINE, CHEMUNG COUNTY, N. Y.

WITH Nursery and Standard Trees, this establishment covers forty acres. Fruit trees of the best varieties, at reduced prices, wholesale or retail, of all the kinds suitable to this climate. Ornamental Trees and Shrubs of all the most rare kinds, both Deciduous and Evergreen; Green House Plants; in short, a Nursery in all its parts. Trees can be furnished of the new and popular "Wagener" apple, also the Dause or Hawley.

Trees carefully packed and forwarded by public conveyance to any part of the Union. Being located within two miles of the Chemung Rail Road, used by the New York and Erie Company, their agents certificate will be forwarded by mail on their delivery. Packages will reach the New York and Erie Road at Elmira, 16 miles south of this, and the Buffalo and Albany route at Geneva, 45 north, which makes it a very desirable location for sending trees by public conveyance. Neither the Pear or Plum Blight, or Peach Yellows, are known at this location.

The Horticultural Advertiser, containing a priced Catalogue, furnished gratis to all post-paid applicants.

January, 1850. [2-2t] E. C. FROST.

Choice Seedling Potatoes.

"*Buffalo Seedling Pinkeye.*" Rather long, marble white, eyes bright pink, productive, hardy, and excellent for the table.

"*Erie Seedling*" Long, intershaded with pink, purple, and green. Productive, hardy, and fine for the table.

"*Seedling Russet.*" Round, smooth, color cinnamon, hardy, early, productive, agreeably flavored, and fine for the table.

My "*Early Junes*" are large, round smooth, light orange white; on the whole, the best early potato for early marketing I have yet known.

Also, superior, renovated seedling potato seed, gathered from the most select varieties, combined with choice specimens late from Europe and South America.

Carefully packed and delivered at the depot, $2 per bush, $4 per bbl. Seed per packet sufficient to produce ten bushels, transmissive by mail at double postage, $1 per packet.

Buffalo, N. Y., Feb., 1850. [3-1t] N. S SMITH.

A Rare Chance.

THE subscriber offers at private sale, or in exchange for serviceable horses or mares, to dispose of his splendid bay colt of the Surprise stock. His connection and interest in the Norman horse make it desirable to be free from this charge. This stallion is nearly five years old, has very superior colts, and from his size, appearance, and muscular development, promises much. Communications may be directed to Robt. B. Howland, Union Springs, Cayuga Co, N. Y. [3-2t]

REVOLUTION IN PERIODICAL LITERATURE!

HOLDEN'S ILLUSTRATED DOLLAR MAGAZINE.

SINCE the death of the projector of this popular Magazine, the property has passed into the hands of the subscriber, who will continue to publish it at the Publication Office, No. 100 NASSAU ST., New-York.

The New Volume,

To be commenced on the First of January 1850, will comprise many important improvements, which, is beleived, will render the Magazine one of the best Periodicals published in the country, as it certainly is the cheapest. Among these improvements will be new and beautiful type, fine calendered paper, a higher order of illustrations than those heretofore given. and contributions from some of the ablest writers in America. It is the aim of the Proprietor to publish a Popular Magazine, adapted to the wants of all classes of reading-people in the Republic, which shall be both instructive and amusing; and free alike from the grossness which characterizes much of the cheap literature of the day, and from the vapidity of the so-called "Ladies Magazines." The illustrations will consist of Original Drawings engraved on wood by the best artists;

PORTRAITS OF REMARKABLE PERSONS AND VIEWS OF REMARKABLE PLACES,

illustrated by pen and pencil. A strict revision will be exercised that no improper article, or word, shall ever be admitted, so that it may be safely taken by persons of the utmost refinement, and read at the fireside for the amusement or instruction of the family circle.

The Review department of the magazine will contain brief critical notices of all the new publications of the day, and will form a complete chronicle of current literature.

From the business and literary connxions already established, the best assistance that the country can afford will be secured for completing the plans of the Publisher, and nothing will be wanting that ample pecuniary resources and watchful industry can obtain to make the Magazine the leading

LITERARY PERIODICAL OF AMERICA.

The extremely low rate at which it is published precludes the hope of profit. except from a circulation greater than that which any literay periodical has ever yet attained; but, with the new avenues daily opening for the circulation of works of merit; the constantly increasing pouplation of the country; the cheapness of the Magazine, and the superiority of its literary and artistic attractions to those of any other work now issued; the proprietor fearlesely engages in an enterprise which will be sure to benefit the public if it should not enrich himself.

The Magazine will be under the Editorial charge and supervision of CHARLES F. BRIGGS, who has been connected with it from the beginning.

The "PULPIT PORTRAITS," a series of Biographical Sketches, accompanied by well engraved Portaits of Eminent Divines of the American Churches. which have formed a conspicuous feature of "HOLDEN," will be continued in the succeeding Volumes of the Magazine, and will render it of peculiar value to religious people of every denomination.

THE FIFTH VOLUME

will commence on the First of January next, but will be issued on the 15th of December. Each number will consist of 64 PAGES, AND NUMEROUS ENGRAVINGS. The Terms are

ONE DOLLAR A YEAR

in Advance; the Magazine will be plainly and carefully directed and sent by mail AT THE RISK OF THE SUBSCRIBER. As each number will be sterotyped, missing or lost numbers can at any time be supplied when ordered, but will be deducted from the time for which payment has been received. Remittances may be sent at the risk of the Proprietor, provided a description of the bills are taken. and enclosed in presence of the Postmaster as evidence of the fact.

Five copies will be furnished for $4, and 20 copies for $15. Nos. for the year 1848. excepting the month of January, will be furnished at 4 cents each. and Bound Volumes in cloth with gilt edge, from July to December inclusive, at $1 each.

Newspaper publishers who will insert this Prospectus four times, and notice the Magazine monthly, will receive a Bound Volume for the year 1849, and an exchange for the coming year; they are requested to send only those papers in which the Prospectus and notice appear. Letters must be addressed to "Holden's Dollar Magazine, No. 109 Nassau st., New York," and POST PAID in all cases.

Jan. 1850, WM. H DIETZ. Proprietor.

Engraving.

E. BALDWIN, would respectfully inform his friends and the public generally that he has located himself in Rochester, and is prepared to execute all descriptions of Engraving, Seals, Labills. Machinery, Visiting and Wedding Cards, Letters, Book and Cloth stamps, Views of Buildings or Animals, in short every thing in his line will be done neatly and reasonably. He will also keep on hand an assortment of

JUVENILE BOOKS,

such as Young Toy Books, Dream Books, Primmers, &c., illustrated with fine wood cuts, plain and colored. Letter and fancy envelops, motto wafers, Prints, Lead pencils, &c.,&c., which he will sell for cash at New-York prices. *All* those wishing anything in his line will please call at No 15 third floor Reynolds Arcade, Rochester N. Y.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

CONTAINING directions for the propagation and culture of Fruit Trees. in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties, cultivated in the United States. By J. J. THOMAS. One volume 12 mo. of over 400 pages. With 300 accurate Illustrations.—Price $ 1,00

NOTICES OF THE PRESS.

"Among all the writers on fruits, we do not know of one who is Mr. Thomas's superior. if his equal, in condensing important matter. He gets right at the pith of the thing—he gives you that which you wish to know at once; stripped of all useless talk and twattle. No man has a keener eye for the best ways of doing things. Hence we always look into his writings with the assurance that we shall find something new, or some improvement on the old; and we are seldom disappointed.

This book is no exception It is *full*. There is no vacant space in it. It is like a fresh egg—all good, and packed to the shell-full."—*Prarie Farmer.*

"We predict for it a very rapid sale. It should be in the hands of every fruit grower, and especially every nurseryman. It is a very cheap book for its price."—*Ohio Cultivator.*

"An equally valuable, but cheaper book than Downing's, was wanted by the great mass. Just such a work has Mr. Thomas given us. We consider it an invaluable addition to our agricultural libraries."—*Wool Grower.*

"It is a most valuable work to all engaged in the culture of Fruit Trees."—*Utica Herald*

"In the volume before us, we have the results of the author's experience and observation continued with untiring perseverance for many years, in language at once concise and perspicuous."—*Albaany Cultivtor*

"The vast number of varieties which have been propagated, renders such a book peculiarly necessary at the present time, serving to point out the good from the bad, and being just what the great mass of the community now want in reducing the list of sorts by retaining the best."—*Ib.*

"We can safely say, with confidence, to our readers, if you need a book to instruct you in the modes of growing trees, &c., from the first start, the system of pruning, &c., &c., you will find the American Fruit Culturist an extremely valuable work. * * The million who purchase it, will find matter adapted to their wants, superior to any work as yet published."—*Cleveland Herald.*

February 1, 1850. [2-3t.]

ELIHU BURRITT'S NEWSPAPER.

THE CHRISTIAN CITIZEN.

ELIHU BURRITT, Proprietor.

EDITORS—ELIHU BURRITT and THOMAS DREW, JR.

REGULAR FOREIGN CORRESPONDENTS—EDMUND FRY, London; J. B. SYME, Edinburgh; ERNEST LACAN, Paris.

THE SEVENTH VOLUME of this large and popular Family Newspaper commenced on the first of January, 1850.—TERMS, ONE DOLLAR AND FIFTY CENTS per annum, invariably in advance. Four copies for Five Dollars.

The Citizen is the organ of no party or sect, but expresses freely the sentiments of its editors upon all the great reformatory questions of the day. Sympathizing with all the great enterprises of Christian benevolence, it speaks against all war in the spirit of peace. It speaks for the slave, as a brother bound; and for the abolition of all institutions and customs which do not respect the image of God and a human brother, in every man, of whatever clime, color or condition of humanity. All orders should be *post paid*, and directed to either of the editors, at Worcester, Mass. [2-3t]

To Seedsmen and Dealers.

The subscribers are prepared to import on very favorable terms, from the most distinguished and reliable Seed Establishments in London or on the continent of Europe, seeds in quantities, and of a quality in which *the utmost dependence may be placed.* The seeds will be forwarded in the original packages and original invoices furnished. Persons wishing to import. may thus avail themselves of the experience of the subscribers, by the payment of a small commission. JAS. M. THORBURN. & Co.

15. John Street, New York.

☞Red Top—Orchard—Ray and other grasses—White Dutch Clover—Lucerne etc. etc., low by the quantity.

Nov. 1 1849.

Take Notice.

THREE Months Extra Pay and One Hundred and Sixty Acres of Land will be procured for all who enlisted for five years, or during the War of 1812, and for, all including Volunteers who served in Mexico, and for the heirs of all who have died in the service.

Information will be given to relatives, Free of Charge, by writing to

G. F. LEWIS,
Detroit, Michigan.
Postage Paid.

Those who do not know what became of their friends, write when and where they joined the army. [2-3t]

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FRESH GARDEN SEEDS, IMPLEMENTS, &c.

RAPALJE & BRIGGS respectfully invite the attention of dealers in Garden Seeds to the stock they are now receiving at their Agricultural Warehouse and Seed Store, consisting in part of the following sorts:—

Beets. sorts; Broccolis; Cauliflowers; Cabbages, sorts; Carrots, sorts; Celery; Cress; Cucumbers, sorts; Lettuces, sorts; Melons, sorts; Onions, sorts; Peppers; Pumpkins; Radishes sorts; Spinages; Tomatoes; Turnips; Early and Late Peas; Dwarf and Pole Beans; Early and Sweet Boiling Corn, Flower Seeds. &c.

The above seeds being raised expressly for us during the last season, by faithful and experienced Seed Growers, we have perfect confidence in offering them to the public.

Seed Grain.—One of the most important cares of the farmer. is the judicious selection of his Seed Grain; and in order that that care may be lightened, and that we may be able to furnish Seed of the best quality, and well adapted to this climate, we have had selected for us, of the following sorts, such Seed as we feel confident will give perfect satisfaction to all:—Black Sea Spring Wheat, Italian do. do., Siberian do. do., Spring Rye, Barley. Bedford Oats. Buckwheat, and many choice varieties of Corn. Also. an extensive assortment of Garden and Grass Seeds.

We have also, at our Warehouse, the largest and best assortment of Agricultural Implements in the State. consisting of Thrashing Machines. Reapers, Corn Shellers, Straw and Stalk Cutters, Horse Powers, Water Rams, Plows, Hoes, Spades, Forks, Pruning Saws and Knives. Churns, Harrows, Rakes Drilling Machines. in short. every article used by the Farmer, the Gardener, or the Horticulturist, from an Apple-Pearer to a Saw-Mill.

We ask every Farmer who needs *Seed* or *Tools*, to give us a call. at our Warehouse in Rochester, nearly opposite the Eagle Hotel, on Buffalo street. where we think we can satisfy all that our stock and prices are right. RAPALJE & BRIGGS.

Notice to Farmers.

HAVING taken the stores Nos. 12 and 14 Front street. I intend to occupy No. 14 for *Agricultural Tools*, and No. 12 as the *Seed Store*. On the first of April I shall open an entire new stock. both of eastern and of Rochester manufacture. *My* stock of *Seeds* is now complete, having received from London, during the month of February, about *three thousand* pounds of Turnep, Ruta Baga, and Cabbage Seeds, &c., &c. I have also on hand my usual supply of American seeds; also, Clover, (large and small,) Timothy, Canada Field Peas, Early June Peas, Marrowfat, Blue Imperial. Early Kent, and Early Prince Albert, (the first in this market for two years past,) with every kind of seeds wanted in this market. Also, five bushels *White Dutch Clover*. Further particulars hereafter.

JAMES P. FOGG,
Nos. 12 and 14 Front street, Rochester, N. Y.
March 1. 1850. [3-1t]

Fruit Scions.

I AM now ready to supply Scions for grafting for 1850, which can be sent by *mail* or Express; and in all cases they have been cut from orchards familiar to me, and by persons in whom I can confide.

APPLES.

Northern Spy, Norton's Melon.
Early Joe, Canada Red.
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Yellow Bellflower, Esopus Spitzenburgh,
Pomme Gris.

When possible, shall send specimens of the fruit.

Price One Dollar per hundred.

Pear Scions.—"Onondaga" or Swan's Orange. "Osband's Summer Virgalieu." "Virgalieu," and all choice varieties furnished at from three to four shillidgs per dozen.

Post-paid applicants shall have prompt attention.

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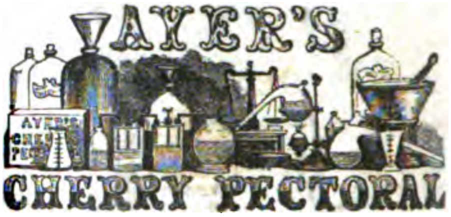
January 1, 1850. Rochester. Monroe Co., N. Y.

Great Cough Remedy.



For the Cure of Coughs, Colds. Hoarseness. Bronchitis. Whooping-Cough. Croup. Asthma and Consumption. The uniform success which has attended the use of this preparation—its Salutary effect—its power to relieve and cure affections of the Lungs, have gained for it a celebrity equaled by no other medicine. We offer it to the afflicted with entire confidence in its virtues, and the full belief that it will subdue and remove the severest attacks of disease upon the throat and Lungs. In this limited space can be given but a small proportion of the cures it is producing in all sections of the country.

From an overseer of the Hamilton Mills.

Lowell, August 10, 1849.

Dr J. C. Ayer: I have been cured of the worst cough I ever had in my life by your "Cherry Pectoral," and never fail, when I have an opportunity, of recommending it to others.

Yours, respectfully, S. D. Emerson

From Dr. Jones, an eminent practitioner of Medicine in Alabama, well known throughout the State.

Montgomery, (Ala.) October 4. 1849

Dr. J. C. Ayer—Sir: I have used your admirable compound extensively in my practice, and find it to surpass by far any other remedy we have for curing diseases upon the lungs.

Your ob't servant. R. B. Jones, M. D.

Professor Webster, of Harvard University, says:

"The evidences of its success as a remedy, sufficiently show that it may be relied upon with confidence for the relief of the numerous and afflicting pulmonary diseases incident to our climate."

If there is any value in the judgment of the wise who speak from experience. here is a medicine on which the afflicted can depend for the rapid cure of disease upon the throat and lungs.

Prepared by J. C. Ayer Chemist, Lowell, Mass.. and sold by the Druggists everywhere.

First in Beauty and Value—Cheapest and Most Popular.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, Jr., Editors.
P. BARRY, Conductor of Horticultural Department.

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GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—APRIL, 1850. NO. 4.

THE ANALYSIS AND STUDY OF GRASSES.

VERY few farmers duly appreciate the value of grass when turned to the best possible account. Broad acres have been too cheap, with their almost spontaneous herbage ready to be cropped by the domesticated animals of man, in this country, for him to study closely how to make two spires grow where only one grew before. In all the older States, however, this native abundance of nutritious forage and grazing is either gone or fast departing, never to return except through the art and science of the husbandman. The time has come when the study of the grasses is called for by every consideration of private interest and the public good.

In his account of the "Geographical Distribution of Grasses," SCHOUW remarks: "PERSOON'S *Synopsis* contains 812 species — 1-26th part of all the plants therein enumerated. In the system of RŒMER and SHIELTES there are 1800; and since this work, were it brought to a conclusion, the family would probably contain *forty thousand* in all." This learned author adds: "The distribution of cultivated grasses is one of the most interesting of all subjects. It is determined not merely by climate, but depends on the civilization, industry, and traffic of the people, and often on historical events." The herdsmen of Switzerland find pastures for their cattle on mountain slopes above the range of forests; and the same is true on the high plateau of Central Asia.* One of the most valuable books for reference, on this and all kindred topics, is Prof. LINDLEY'S "Vegetable Kingdom"— a work which will pay well to re-print in this country. Prof. EMMONS has given the results of his analyses of several varieties of grasses grown in the United States, and of red and white clover, in his "Agriculture of New York," which furnish many new and valuable facts. On page 70, Vol. 2, he says:

"TIMOTHY GRASS. *(Phleum pratensis.)* — First specimen, collected May 20, 1848. Stalk 24 inches long, head not visible.

PROPORTIONS —	Stalk,	65.30
	Leaf,	34.70
		100.00

Water in stalk,	81.00
Dry matter,	17.80
Ash,	1.20
Ash calculated dry,	6.74
Water in the leaf,	75.00
Dry matter,	23.00
Ash,	2.00
Ash calculated dry,	8.69
Water in the whole plant,	78.00
Dry matter in the whole plant,	20.46
Ash, " " "	1.60
Ash calculated dry,	7.82"

As specimen No. 2 varies little from the above, we omit it. 100 parts of the ash of timothy hay gave the following results:

Silica,	41.650
Phosphates,	16.925
Carbonate of lime,	0.200
Magnesia,	0.500
Potash,	30.760
Soda,	1.020
Soluble silica,	0.200
Chloride of sodium,	2.490
Sulphuric acid,	4.130
	97.875

By the above figures it will be seen that over 72 per cent. of the earthy matter removed from a meadow or pasture in the plant called timothy, is silica and potash — both of which are of course dissolved in water before they enter the roots of the plant. The stems of all grasses are large consumers of these minerals, which in a soluble condition are seldom abundant in any soil. As in wheat, rye, oats, barley, and maize straw, the quantity of ash varies considerably in different samples grown on unlike soils, so in timothy, red top, orchard, and other cultivated grasses, the proportion of earthy matter varies in an equal degree. Nearly all meadows contain several species of this numerous family of social plants, besides more or less of clover. Probably 6 per cent. of ash per 100 lbs. of dry hay will be a fair estimate. This gives 120 lbs. per ton of hay removed from the soil.

The ash of RED TOP *(Agrostis Vulgaris)* differs essentially from that of timothy. It contains much less potash and far more lime, as the following analysis by Prof. EMMONS indicates:

Silica,	41.90
Phosphates,	13.75
Potash,	4.92
Chloride sodium, (salt,)	2.00
Carbonate of lime,	10.03
Magnesia.	6.64
Soda,	9.61
Organic matter,	2.35
Sulphuric acid,	7.30
	98.50

From the quantity of lime, sulphuric acid, and soda in the above ash, it is apparent that gypsum and common salt in addition to wood ashes, will be of great service on red top meadows. Salt and plaster are exceedingly valuable articles to mix with all stable and barn-yard manure, as well as with night soil, before their application to the land.

---

* See Humboldt's Travels, Vol. 2d.

A luxuriant plant of **Spear Grass**, *(Poa pratensis,)* sometimes called herds grass, just headed out, gave of

Water,	81.564
Dry matter,	18.436
Ash,	2.267
Ash calculated dry,	12.296

ANALYSIS OF ASH FROM WELL DRIED HAY.

Silica,	56.320
Phosphates,	14.980
Carbonate of lime,	3.540
Potash,	15.624
Soda,	6.828
Magnesia,	1.996
Sulphuric acid,	0.200
Chlorine,	0.863
	100.351

Another specimen gave the following results, which Prof. E. suggests may be a fairer average sample of *poa pratensis* than the above :

Silica,	48.300
Phosphates,	11.650
Lime.	0.030
Magnesia,	trace.
Potash,	3.531
Soda,	12.505
Sodium,	4.180
Chlorine,	6.365
Sulphuric acid,	5.156
Organic acid,	4.400
	98.186

The quantity of chlorine, soda, and sodium, (all of which are common salt,) in the above deserves attention. The almost total absence of lime is remarkable. We respectfully suggest to farmers to try the easy experiment of sowing broad-cast about two bushels of salt on an acre as an experiment, applying it five weeks before haying time. It will be more likely to benefit dry than wet meadows. Two bushels of salt and two of wood ashes, unleached, will doubtless pay well for the expense incurred.

In former volumes of this journal we have frequently taken occasion to say, from our personal observation, that young clover, young corn, and other plants cut for soiling, should be partially dried before feeding. The following results bear upon that question. Red clover gathered when nine inches high, contained

Water in the stem,	88.30
Dry matter,	10.95
Ash,	0.75
Ash calculated dry,	6.85
Water in the leaf,	71.00
Dry matter,	20.00
Ash,	2.00
Ash calculated dry,	10.00
Water in *leaf and stalk*,	84.15
Dry matter,	14.48
Ash,	1.37
Ash calculated dry,	9.46
Ash in a ton,	211.68 lbs.

All plants, when young and growing rapidly, contain a large amount of water to facilitate the circulation of their aliment. There is more water in 100 pounds of young clover or corn than in a like weight of blood. In the arterial blood of a horse there is about 76 per cent. of water; in that drawn from a vein a little less, say 757.251 in 1000 parts. To keep horses, cows, working oxen, and sheep in health, and provide for them a generous supply of food, are objects of great importance to the farmer. Science will aid him much in this department of his great profession, if he will not treat her with rudeness or neglect.

S. W.'S NOTES FOR THE MONTH.

Our Winter Trade.—A correspondent of the Syracuse Star, in his statistical notices of freight coming from the east, to go via Geneva and the Erie Railroad to New York during the month of February, has omitted to include some hundred tons of whiskey, pork, cotton and woolen goods, &c., &c., which has gone by water from Waterloo to Geneva, whence the loaded boats were towed by steamer direct to the railroad depot at the head of Seneca Lake. Heavy goods, sugar, molasses, &c., are now brought by the Erie Railroad Company, from New York to Geneva, at 48 cts. per 100 lbs. The spring trade is thus early being supplied by this route, to the discouragement of our canal boatmen, many of whom are now bound to California.

Ireland and the Irish.—From the great rush of Irish emigrants into the United States, one would naturally suppose that Ireland was over peopled. So far from it, **Carlysle** tells us what a beautiful country Ireland might be ; but alas, says he, "it carries on it, as the surface of the earth ever does, ineffaceably legible, the physiognomy of the people that inhabit it — a people of holed breeches, dirty faces, ill roofed huts — a people of impetuosity and levity — of vehemence ; impatient, imperfect, fitful industry ; imperfect, fitful veracity." * * * "Vigorous corn, but thistles and docks equally vigorous ; ulcers of easily reclaimed bog, lying black, and miry, and abominable, at intervals of a few miles ; no tree shading you ; with fences as it were soliciting the cattle to be so good as not to come through — by no means a beautiful country just now ! but it tells all men how beautiful it might be." He advises all those patriots who talk about dying for Ireland, to reflect upon the better policy of living for it — "let them at least plant one tree each. That eight millions of persons will be persuaded to plant each his tree, we do not expect just yet ; but do thou, my friend, in silence go and plant thine."

The Fever for Gold.—One day last week, about $6,000 of the new gold coin was received in this village, fresh from the mint. This was the gross earnings of three individuals lately returned from a year's voyage to California. Their less fortunate associates were left behind to enjoy as they could their various health and fortune — the poorest and sickest buoyed up by that ever blessed hope, which the philosophic **Hume** said was worth a thousand pounds a year ! The sight of these money bags, for the time being, turned every head — nothing was talked of, thought of, or dreamed of, but fitting out or setting out for the El dorado ! Woe to that croaker who dared to speak of the uncertainty of the diggers' gains, the certainty of privation and sickness and suffering, as every eye was blind, every ear deaf, and the mind impassive to all the hindrances and positive evils that stood in the way of the glittering pile ? All accounts agree that from the east, the north, the south, and the far west, at this time the migrating army of gold diggers is greater than ever ; still greater, perhaps, than the host of crusaders that followed Peter the hermit to the holy land !

Society in New York.—That *unique* and original weekly, the Home Journal, is translating Dr Trobriand's articles on fashionable life in New York. The accomplished *reducteur* makes the New York ball a very poor affair, intellectually, as compared with the *reunions* of Paris. He says that the "young American, on his entrance into society, has often but one recommendation, the talent with which his tailor has endowed the cut of his coat." Also, that a man of mature age "is isolated in the gay throng, meeting rarely a woman worth seeing or talking to, and more rarely still a woman who finds as much charm in conversation as in waltzing — he soon gives it up, and balancing one ennui against another, he prefers that which does not give him the trouble of dressing, and which he can find weapons to contend with at home — pen or books, if his mind is active, and sleep if he has no faculty for anything but business."

The Season.—This has been one of the most open, mild winters, known for many a year. The first snow fell early, and in the mud; this froze hard, making a good bottom for subsequent snows. No one here remembers a winter with so many weeks good sleighing during moderate weather and frequent rains. Our farmers are now hauling out their manure, a much easier process in cold, stimulating, March weather, than under an enervating April or May sun, to say nothing of the gain in time, from the lack of which, when too much work is crowded together, more than one field has had to go half tilled. An amateur farmer here has been occasionally, all winter, hauling manure from our livery stables to his little sandy farm. It may be said that he cleaned the Augean, as he went to the bottom of a hole or swale at the back of a range of stables, taking up the nitrogenous matter which, like guano, was improved by age and concentration. *Waterloo, March*, 1850.

SALT AND ARSENIC.

Messrs. Editors:—In the January number of your most valuable paper appear two articles reccommending the general use of salt as a manure, with the addition of a little *arsenic* when the land is infected to any extent with wire-worms and other destructive vermin. As your correspondents are not sufficiently explicit as regards the use of the latter article, permit me to inquire whether a larger quantity than that spoken of by Mr. Park of Gates, in his first article, would not more effectually attain the desired object? That gentleman says he applied the small proportion of two pounds of arsenic to two barrels of salt. Now, as arsenic is not a dear article, I would be obliged if Dr. Lee would inform me if it contains any properties which could possibly have an injurious effect on vegetation. In Mr. Park's second article, in the same paper, he says that a *peck* might be sown advantageously, but does not say on how much land to apply that quantity. I presume an acre — quite different from *two pounds*. If assured that arsenic would not have a bad effect, I would be disposed to make a trial of its virtues, or rather *poisons*. With due care, no danger to cattle need be apprehended.

I would thank Mr. Park on behalf, I doubt not, of many of your readers, for his interesting articles referred to. We of the Cataract county would be happy to hear from him again on the same, or any other subject. R. H. J.—*Lockport, Feb'y*, 1850.

Wheat Husbandry.

ON SMUT IN WHEAT, AND THE CAUSE OF IT.

NUMBER III.

In my former articles I gave a statement of facts. A leisure moment affords me an opportunity of giving my *theory*, founded on those facts.

I suppose the smut bug (or its precedent worm) to remain in the ground in a torpid state, during the winter, like the common fruit curculio. When the spring opens with sufficient warmth, it revives and commences its work of destruction by attacking the *roots* of the young wheat. I am led to believe this the more readily because, as stated in my first article, I have invariably found the vitality of the roots of the smut wheat destroyed by some worm or insect; and I can imagine none so likely to *commence* the destructive process as that which *completes* it, by its operations on the grains in the ear. It therefore probably feeds on the bark, or outer covering of the roots, until the time of the earing, or "heading out." Those plants which have been thus injured, generally throw up feeble stems, with small ears, not having received the proper quantity of nourishment from the roots. As soon as the ear appears above the sheath, and when it may be supposed to be in a critical state of *gestation*, the bug leaves the roots (the bark of which has become too tough, or too scanty, to supply it with suitable food,) and climbs the stem to the ear, where it consummates its destructive operations by perforating the chaff cases of the grain, within which it deposits its nit, or egg. The puncture probably injures the small vessels which would otherwise supply the grains with their proper nourishment, (in whole, or in part,) and causes an entire change in the substance of the grain. This change renders it the proper and natural food of the bug. It also becomes the fit receptacle for the deposition and nurture of the ova of the insect. I suppose the change in the grain to be produced by the perforation of the case, or chaff, and deposit of the nit or egg: for I have now in my possession several ears, in which there are many grains of smut and good grain intermingled; and also several ears in which the grains are part smut and part good farina—some about half and half, and some more or less of each.

It has been conjectured by several writers on this subject, that a radical change in the plant is effected by the operation of some latent poisonous principle, before the earing out. One writer (Duhamel) has stated he "found the ears smutted as early as March or April, upon carefully opening the hood, or blade, *even when not more than the sixth part of an inch in length*"! Another (Tillet) says, "the smutted heads or ears can oftentimes be found *vitiated in the hood*," &c.—Spallanzani "found (or supposed he found) that the smut was produced in the plants long before the impregnation." Whence Darwin concluded, "that for want of impregnation, or the vivifying principle, the wheat corn might putrify, as is the case with addled eggs," &c.

With a knowledge of the facts stated in my former numbers, it is impossible for me to believe that the grain could have been smutted by any "vitiating principle in the air," when the ear was not more than the sixth part of an inch in length, and still "in the hood;" or that smut was produced from "unseasonable cold and wet." For, in either case, I must suppose that a diseased state of the stem, or ear, would so operate upon all the sap vessels, as to produce a change in *all* the grains in the ear, or at least of the *whole of each grain* affected by the disease. That there is a constant circulation of the sap in plants while growing, in some degree similar to the circulation of the blood in the animal creation, I presume no one will deny. Such being the case, it is difficult to imagine how one part of a grain can be good and the other bad, when the same sap is circulated and distributed to each section in precisely the same manner. I have little confidence in the statements of the discovery of smut at so early a stage in the growth of the plant — in the fine-spun theories respecting the cause of smut, I have none at all. My observations have convinced me that the change in the grain is produced *after the earing*, or "*heading out*," and while the germ of the grain is expanding. In cases where the grain is wholly smutted, I suppose the perforation to have been made at so early a period, that the germ being very small it is *wholly* affected and changed into smut. When the grain is only *in part* smutted, I suppose the nit to have been deposited at *so late a period* as to injure the part of the grain *immediately around* it; and that the other part of the grain being too much hardened to be operated upon, produces good farina or flour. As the bug is slow in its operations (and but *one* perhaps on an ear) it may be, and probably is, several days in perforating the grains in a single ear. In such cases, some of the grains perhaps are not perforated at all, and of course are not affected, while others in the same ear are *entirely* or *in part* smutted. Whether the bug, when it deposites the nit or egg, leaves with it some *poisonous* matter for its sustenance, which produces the change in grain, or whether the nit very soon becomes a *worm, which nestles in the grain*, and thus produces it, I do not know.

When I wrote those articles for the Argus, I had no very definite opinion as to the particular manner in which the smut was formed by the operations of the "bug," (or "*beetle*," as some fastidious learned people insist upon calling the insect.) It will be perceived that in my third article I gave it as a *supposition* that "the bug, or its precedent worm, when revived by the warmth of the spring, commenced its work of destruction by attacking the roots of the young wheat." From subsequent examinations, I am convinced that that conjecture was not well founded. I am now perfectly satisfied that the excoriations of the roots of the wheat were made by the "*wire-worm*," which has for the last twenty-five or thirty years destroyed so much of our wheat; but which has generally been supposed to have been "*killed by the winter*." That the *ova*, or *larva*, of the *smut insect* remains, during the winter, *dormant* in the *smut grain, as an egg* or *worm*, there can be no doubt. The unexpected result of carrying the smut grains into my wheat field with the barn-yard manure, as stated in my second article, appears to afford sufficient proof of this. As great numbers assume the *insect form* in the fall, they probably pass the winter in that state, and, like other insects, revive in the spring. However this may be, those which I hatched all died after a few weeks spent in feeding on the smutted grains contained in the bottle with them.

From all the investigations which I have been enabled to make, in relation to the *manner* in which the smut is produced by the operations of the insect, it is this: It perforates the *glume (chaff case)* of the grain, and deposits its "*nit*," or "*egg*." On the outside of the chaff case the puncture closes up, (as do, generally, the lips of a punctured wound in flesh;) but in the inside the wound or puncture is kept open by the oozing in of the undigested sap of the plant, which runs into the unfilled cavity of the glume and fills it with *smut*, which is nothing more nor less than the *crude* or *unprepared* sap of the plant thus *prematurely* let in where good flour would have been formed if the sap had been left undisturbed, to pursue its ordinary course of preparation and circulation through the *natural channels* or *sap vessels*. And when *one part only* of the grain is smutted and the other part is *good* flour, it is, as suggested in my third article, because the perforation was made at so late a period that a *portion* of the cavity (less or more) had been already filled with *properly prepared* sap, *(flour,)* and but a part left unoccupied, but which was filled with *undigested* sap *(smut)* immediately after the puncture was made; both operations, that of forming good flour and the other of forming smut, no doubt going on at the same time; the latter, however, probably proceeding much the most rapidly.

Having, as I confidently believe, fully established the fact that smut in wheat is caused by the *operations of an insect*, and having discovered and identified that insect, I will proceed to consider as to the best means to be used as *preventive remedies*. And here I will confess that I have not any great degree of confidence that after the insect has been for several years an inhabitant of a farm, there is, or can be found, any certain and immediate preventive remedy for the evil, by the destruction of the insect, or otherwise. I have practiced several modes of preparing the seed wheat — at one time washing it with water; at another, soaking it in very strong lime water for twelve hours or more; in a third instance, wetting the wheat and mixing quick lime with it. Neither of these modes of preparation *entirely* prevented smut in the produce. The smut insect had become an established inhabitant of my farm, and I found it almost impossible to turn it out of the possession.

At length, however, I tried another plan. The heavy chaff and "tailings" of the cleanings of my wheat, containing the unbroken smut grains, (with, of course, the nits or eggs of the insect in them,) I carefully carried from the barn and destroyed them, so that none of the smut grains went into the manure. Particular care, also, was taken to sow no seed which had a *grain* of smut in it. This course was pursued for several successive years, and, after some twenty years of observations, experiments, and exertions to free my wheat from smut, I succeeded in raising good and clean wheat generally, but not always — occasionally I have found my old enemy smutting my wheat again. It probably strayed over into my fields from some neighboring farm; for, since the wheat in this vicinity was first discovered to have become smutty, the evil has occurred, I believe, in some locality or other, *every year*, in a greater or less degree. Notwithstanding all my care and exertion to free my wheat from smut, I am not at all sure but that *nature* had as much to do with my success as I had myself. I believe it is generally understood that some seasons are not as favorable to the reproduction of insects as others. Cold and wet weather no doubt destroys many of the young insects after they are warmed into life. Severe winter frosts may also do the work by freezing and *addling* the eggs. It is also asserted (and I believe truly,) that *parasitical* insects deposit their nits in other insects, which being hatched out, prey upon and destroy those that have thus served them for nests and food. Some one, or perhaps all of these causes combined, may have contributed to produce the desired result. Be this as it may, I am perfectly satisfied that the course which I pursued was the best, and indeed, the *only one* at all likely to be successful. If the *smut grains* are thrown into the barn-yard, and thence carried out upon the farm in the manure, I do not think it possible to free a farm from the smut insect. The insect appears to be brought to maturity at the time that the wheat is usually earing, or "heading" out, and the deposit of the *nit*, or *egg*, is commenced immediately thereafter. Early sown wheat generally fares the best; probably because of its "heading" out before the insect is ready to commence its operations. But if sown *very early*, for the purpose of having it ear or "head" out before the maturity of the smut insect, it is frequently attacked in the autumn by the "Hessian fly;" and thus, by attempting to escape one evil, we run into another oftentimes much worse; for the "Hessian fly" is generally far more destructive than the smut insect — the former frequently destroys the whole crop, the latter never destroys more than a minor portion of it. At the same time, however, *if the grain is cut before it becomes "dead" ripe*, it is very much injured by the grains being blackened by the dust of the smut as well as by having the unbroken smut grains mixed with it. *Very late* sown grain is very liable to be smutted if the insect is in the neighborhood of it. Wheat should, therefore, be sown neither *very early* nor *very late*. The best season for sowing it is, undoubtedly, between the 5th and 25th of September. Yet, as to its being smutted or not, much will depend upon the weather of the succeeding spring. If the season should be cold and "*late*," it would probably retard the growth of even the *early sown* grain, and bring its *latest growing heads* within the period of time required by the insect for the deposit of its eggs. J. H. H.

"CORN vs. WHEAT"—AGAIN.

Messrs. Editors:—As a constant reader of your invaluable paper, I have witnessed with much interest the increasing contributions of my brother farmers, (an auspicious sign, not only in practical but theoretical farming,) especially one from my fellow townsman, under the title of "Corn vs. Wheat.—Drill Culture, &c," as a subject calculated to elicit discussion on the comparative profits of these valuable crops. In the chapter Mr. Sperry has furnished your readers, he has not given them the expense of raising his crop of corn, nor that of raising a crop of wheat. In this respect, therefore, he has failed to give us the full benefit of a careful, repeated, and reliable experiment.

With the "Young Digger," I think it exceedingly unsafe to *jump* at conclusions; and after several years of somewhat careful observation in farming, so various are our seasons, our soil, its condition, its culture, and our markets, that for one I am not ashamed to confess myself ignorant of the great art of husbandry and the relative profits of some of our staple crops, and much in need of the benefits of scientific instruction, even at the hands of our "sapient legislators," although some of my neighbors deride "book, or collegiate farming."

Now a few words in review of friend Sperry's article on "Corn vs. Wheat." In giving the gross amount only of the value of his crop of corn, without charging it with the expense of manure and its application, plowing, planting, hoeing, harvesting, &c., Mr. Sperry has failed to satisfy at least one of your readers of its comparative profits. He many not have used manure, and thereby saved that expense for that crop. Every practical farmer knows full well, without the aid of science, that corn is an exhausting crop—not more so, however, than some others; but it leaves nothing to restore the waste it occasions, consequently constant cropping with corn would require a heavy outlay for manure every year after the first or second, at longest—a heavy charge against the crop. I hold that any system of farming in Western New York, where much of the land is already too much exhausted by constant cropping, that does not essentially improve the soil, is unprofitable. In these remarks I would by no means disparage the raising of corn. Corn is invaluable to the farmer as a feeding or fattening crop, or for cleansing one's fields of foul grasses, if the quantity planted be confined to no more than will be done carefully and thoroughly.

A word about the use of the drill in planting corn, (which I see by friend Sperry's frequent communications is quite a favorite with him.) He is silent *this year* on the subject of its use as a cultivator. Corn planted with a drill can be planted in rows but one way, while the other it will be scattered along the row or irregularly deposited in hills. We have had a little experience in this mode of planting. Our experience is, that when scattered in rows it may somewhat increase the amount of the crop; yet on a "blue or June grass" sod it greatly increases, nay, nearly doubles the expense of tillage, and in a wet season would utterly defeat a great object of corn culture, namely, that of destroying foul grasses. We have never found a better way, on the heavy soils of Gates, (these grasses being indiginous to such soils,) to "chastise them," than to row corn both ways. Make frequent use of the corn harrow, cultivator, or plow, and what is better, all of them both ways, not neglecting the faithful use of the hoe, even were we obliged to go to the "tombs of the Capulets" for them. "Work once well done is better than twice half done." Our opinion, on a review of the article in question, is, that for every day saved in planting on "blue grass" sod with a drill, four is lost in tilling. The most of the labor of raising a crop of corn is in the hoeing and tending. Such planting is "filling at the spiggot and leaking at the bung."

A word on the relative profits of "corn vs. wheat." Last season, after a crop of corn that had been planted on a clover sward manured, I well cultivated *both ways*, (which, by the by, was rather expensive,) and sowed wheat. The expense and produce, so far as I recollect, which is pretty near the mark, although the account was not accurately kept for the purpose of giving it to the public, was as follows:

5 acres, once plowing, man and span horses, at the rate of 1½ acres per day, 3⅓ days at, $2 per day,	$6 66
Seed 1½ bushels per acre, 7½ bush., at $1,12½,	8 44
Sowing and harrowing twice, boy and span of horses one day,	2 00
The crop stood well, and was harvested for $1 per acre,	5 00
Drawing and securing,	2 00
Threshing 150 bushels at 6 cents per bushel,	9 00
	$33 10
The Value of the crop, 150 bushels, at $1.12½ per bushel, about the average price last fall, although it brought more, was,	$168 75
Balance in favor of the profits of the crop,	$135 65

Friend Sperry, or some other advocate of corn as a market crop, may figure his profits higher than this; for this is not given as an extraordinary result by any means, or as establishing a system of farming or cropping. A far greater produce in value, either of carrots or many other roots and vegetables, can be realized, and yet with less profit.

The lot mentioned above was thoroughly cleansed from foul grasses and seeded with clover. The season being favorable, it set well; and the soil being rich, it gave a most luxuriant velvet covering to the ground, securing the young clover roots against the frosts of winter, besides furnishing considerable feed.* Next summer this lot will not lie bare, exposed to the leaching rains and evaporating rays of a summer sun, "to waste its fragrance on the dessert air," as it would after corn, if the land was poor, (and it will will soon become so by raising two crops of corn to one of wheat,) or foul, or there was not time to sow it; but in beauteous and joyous contrast will give at least two or two and a half tons of hay to the acre, or what is better, give a large quantity of good feed and leave a sufficiency for plowing under and self-manuring. Managed in this way, with once plowing and the use of the cultivator thereafter, the same lot, if the season be a good one, is as safe for 40 bushels per acre the next crop as 30 after corn.

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* I would by no means recommend feeding clover fallows, except on rich lands where the whole crop is not needed for manure.

In this article, which is already too long, we have not noticed the subject of transforming corn at fifty cents a bushel, the basis on which our friend makes his profits, into pork and beef at from $4.00 to $4.50 per hundred; the secret I have never learned, and am therefore incompetent to such a task. A Gates Farmer.—*Gates, Feb'y,* 1850.

BENEFITS OF DEEP PLOWING.

Messrs. Editors:—Some fifteen years since, being in the State of New York, I saw for the first time an agricultural paper—the *Genesee Farmer.* In that was an article relative to deep plowing, which I perused carefully, and by it was induced to try an experiment. I had previously farmed it as others did, thinking that there was no way to increase the product but to increase the number of acres.

I had a field containing four acres and one hundred rods of ground, which had been cleared nine years and had had a grain crop on it every year—wheat, corn, and oats—the three last were oats. The field was considered nearly worn out, and would not have produced more than fifteen bushels of wheat per acre. There were many large stumps and four green trees on the field. The soil was clay loam. I had only a single team—a powerful span of horses—and a single plow, (Wood's.) I raised the end of the beam three inches and commenced plowing in June, when the ground was wet, turning up about five inches that had never been stirred before, plowing about three-fourths of an acre per day. The ground was dug up with a spade around the stumps, harrowed and plowed shallow twice afterwards, and sown the fifth day of October with two bushels of velvet bearded wheat per acre. In the spring were sown 150 pounds of plaster where the wheat looked the poorest. The result was, although much was wasted in gathering, for it shelled badly, I had by weight 196½ bushels besides one large load not threshed at the time, which would have increased the product to at least 212 bushels. Since that time I have plowed deep, and the result has been invariably the same, or at least doubling the crop. Deep plowing on a soil like mine will prevent the crop from suffering from wet or dry weather, and is a preventive of rust, or at least has been with me, and it will not turn to weeds, as much wheat does in Michigan. The editor of the Michigan Farmer thinks "it is almost a miracle" if a farmer here gets a good crop of wheat; yet none fail who cultivate their land properly. This we can prove by many farmers in this county.

The general system has been, ever since the first settlement of this country, to plow shallow and grow wheat after wheat, without manure, or even seeding to grass, until all the food for the wheat plant is exhausted, and then we are told that the seasons are such we cannot grow wheat and must turn our attention to raising sheep; but will sheep thrive if we serve them as we serve our wheat? Will they live without proper food? Or will they live in the water without turning to musk-rats? Yours, &c., Linus Cone.—*Troy, Oakland Co., Mich., Feb'y,* 1850.

ECONOMY IN RAISING WHEAT.

As the country improves with the introduction of labor-saving machines, quite a revolution is taking place in the management of fallows for wheat. Instead of following the old practice of plowing twice or thrice, re-inverting the sod and affording a fine opportunity for the grass to grow, the theory now obtaining is to plow once and deep, the after work being performed by the harrow and wheel-cultivator. The advantages arising from this mode of culture are as follows:—The sod once inverted remains below the surface, affording in its decomposition food for the young plants; it also affords an opportunity for the superabundant water to pass off, thereby removing the liability of the ground to bake or heave. On land comparatively free from stumps and stones, as all old cleared land should be, I consider this a decided improvement on the old plan. Another important consideration is, the ground once plowed, the labor is in a great measure accomplished. By the use of the harrow and cultivator occasionally, the ground will become finely pulverized; so when the time of seeding arrives, the ground is already prepared for the reception of the seed. If any doubt the superiority of this mode of tillage, let him try and see.

The present is emphatically an age of improvement, and he, whether farmer or otherwise, who neglects to avail himself of the advantages to be derived from the recent works of art, and the sciences, should have the honor of being alone in his glory. W. Ansley.—*Rushville, N. Y.*

A TROUBLESOME WEED.

Messrs. Editors:—As your columns are open to the interests of the farmer, I wish to make a few remarks in regard to an obnoxious weed, little known in this section, and yet abounding in a greater or less extent throughout the country. It is called *Ackley Clover*, but is probably a species of the white daisy. It takes its present name from the person who first introduced it into this State. It is probably the most injurious to the growing of wheat of any known foul weed, because, after becoming once seeded, it cannot be eradicated as long as you grow wheat. It grows equally well and sometimes as high as the grain, and by the thick mat it forms it is almost impossible to get through a field of it. It resembles May-weed in every respect, (excepting it grows more rank,) and this is one cause of its spreading so rapidly, people not knowing what it is, and calling it May-weed. The root lives until it is three years old, and continues to branch out and seed nearly all summer, and in its last year's growth, one root will cover as much ground as a half bushel. The seed is very small and of a yellowish cast, and can with difficulty be detected in clover seed, in which way it is being sown broadcast all over our country. I would advise all those purchasing clover seed to be careful and examine close.

Messrs. Editors, if you consider this scroll worthy of notice in your paper, you may re-model it to suit your fancy, as it is written in haste. I want to get the article before the farmers in Monroe county, and perhaps some one more competent to describe it will take it up and give some method of getting rid of so hateful a pest. Subscriber.—*Rush, N. Y., March,* 1850.

Answers to Inquiries.

APPLICATION OF BONES AS A MANURE.

DR. LEE: — As I have been a constant reader of various agricultural journals, for seven or eight years, my attention has been attracted by frequent notices of the great utility of bones, in different conditions, as fertilizers; and being now in a situation to procure them, I wish to inquire of you, what is the most economical and effective manner of applying them. It seems that the method of reducing them now generally used, is by means of sulphuric acid; and a Prof. Way, of England, I believe, recommends the addition of equal weights of acid and common salt. On this I should like to have your opinion, as well as on the following points, viz:

1. For corn, on a clay loam, would leached ashes, charcoal *waste*, or both, be best to dry the bones with, after solution? 2. What is the best mode of application for corn or root crops, to drop it with the seed, or to cover the seed and apply immediately over it, or wait until the corn, carrots, &c., appear above ground? 3. Will the mixture be injured by lying in a heap a month or more? And lastly, how much is required per acre for corn?

An answer to the above questions, in season for the coming spring, will be very thankfully received.

My father purchased the farm that we occupy, in the spring of 1848. It consists mostly of a clay loam, on a stiff clay subsoil, and is underlaid by a species of limestone. Some boulders, of the same kind, also lie on the surface. The farm has been "skinned," pretty thoroughly; but we, being "book farmers," expect to increase its fertility somewhat before long, by means of deep plowing, turning under clover and buckwheat, by raising spring crops and manuring them well, to be followed by wheat; and, lastly, by keeping the ground always covered, as far as possible. The good effects of which mode of culture are apparent already. We are also trying to get up a "Farmers' Club," and to obtain some subscribers to your paper, which we get through your agent, MR. REED, at Lockport.

But as your time is precious, I will not tax you further at present. J. BREADING TREVOR.—*Lockport, Feb'y*, 1850.

"Leached ashes and coal waste" will be useful on clay loam, for corn or any other crop. These fertilizers being mild in character, they should be applied to corn land in quantities sufficient to spread over the whole ground, and be incorporated with the soil by the plow, harrow and hoe. This should be done, i. e., the ashes should be applied before planting. Unleached ashes are most economically used by adding one bushel of salt, one half do. plaster, with two of ashes, and adding the mixture to the soil as a top dressing for each hill, after the first hoeing or weeding; taking care not to have the salt and ashes come in contact with the young plants. One or two ounces, or such a matter, spread over the roots of each hill will be of essential service to the crop.

Leached ashes and rotting manure, mixed in a compost heap, improve each other — the carbonic acid eliminated from the dung, or decaying organic matter, will render the potash, soda and lime salts (silicates) in the ashes soluble, while the alkalies named will aid in forming salt-petre. (See account of artificial nitre beds, in Johnston's Chemistry.)

The only objection to the use of sulphuric acid for dissolving bones is the expense of the article. To avoid this, we have preferred to break up bones with an old axe, pretty fine, and boil them to a powder in strong ley. To this compound we add a little salt and gypsum. It may then be mixed with a little fine dry loam and distributed with a drilling machine over seeds of corn, carrots, beets, or other plants. The compound is too caustic to be placed in contact with tender germs. It is a powerful fertilizer. As to quantity per acre, every man's judgment, means, quantity of land, &c., must decide that question.

HEMLOCK LANDS.

ALTHOUGH not a farmer myself at present, (a physician,) I was brought up on a farm, and now feel a deep interest in the scientific cultivation of the soil. I have been in contact with your paper for the last year, and I must say I am entirely satisfied with the general and practical principles therein inculcated. One thing, I hope you will as far and as often as possible observe, to give all the instruction you may obtain in relation to the cultivation of the soil of *hemlock land*. This is too much neglected in our *agricultural* papers. And as our soil in this section of Steuben is mostly "hemlock," I hope that your own remarks, as well as those of your practical correspondents, may be directed occasionally for our benefit. Yours, &c., THOS. SHANNON. — *Orange, N. Y., Feb.*, 1850.

As a general thing, soils on which hemlock grows lack lime. Draining, liming and turning in clover, (the growth of which is greatly promoted by gypsum,) will improve all lands of the character which usually produce much hemlock. They are sometimes fair wheat soils, but commonly better adapted to grazing than to grain culture. By seeding liberally, and manuring, a good return in dairy products, wool, and neat stock, may be realized from soils not naturally fertile. In some countries and districts hemlock grows on very superior land, which will bear fine crops of all kinds adapted to the climate. No land that produces large forest trees can be *very* poor. With good management it will bring great crops of grass that can readily be transformed into gold.

WHEAT FLY OR WEEVIL.

A correspondent, of Crawford co., Ohio, communicates the following intelligence:

The wheat weevil has commenced its ravages in this section of the country. The first that I saw of them was in 1846. They have been increasing steadily every year since. Last harvest they destroyed the greater part of the late sown wheat. Will they continue to increase as they did in St. Lawrence co. and that part of Canada opposite there, until they take *all the winter wheat?* I believe they will. What is your opinion on this subject? S. P. JAQUITH.

Is the insect spoken of a *little bug*, like that in peas, or a fly with wings, when it comes out of the seeds? We suppose it to be the *wheat fly*, and not a weevil at all. This insect deposits its eggs when the seed is forming, which hatches out after harvest in Western New-York, and is often seen in thousands when cleaning wheat, and sometimes later. The Hessian fly is a different insect. The only remedy for this pest, known to us, is to seed out of season — either quite early or very late in autumn. It is impossible to predict what will be the abundance or scarcity of this class of animals, at any future period.

INSECTS ON THE ROOTS OF CORN.

A correspondent writes at the close of a business letter as follows:

I have been hoping to see something said in the Farmer, relative to the louse that is so destructive to corn, in Kentucky. The roots of the young plants are attacked by them and its growth paralyzed. They attach themselves to the roots in great quantities and the plant becomes hard, and the growth stationary, and many farms do not yield half crops, when infested by them.

Any thing that would remedy this evil will be of immense value in Kentucky, if it is attainable. I would like very much to hear from some of your numerous readers on this subject. Yours, with due respect, Z. R. HUGGINS.

We suspect that the depredator is an aphis—perhaps the same that sometimes attacks the cotton plant. If any reader has any knowledge on this subject he will serve the cause of agriculture by communicating his information to the public through this journal.

CULTURE OF BEANS.

MESSRS. EDITORS: — Will you please to answer me the following questions? The best kind of beans for field culture on an extensive scale? The manner of culture, commencing with the time of planting? The best manner of harvesting, drying and marketing? The place of marketing a crop, of one, two, or three hundred bushels?

I would also wish to know the probable number of bushels per acre — the ordinary price — also, the earliest time they may be taken from tho ground: referencc being had, throughout, to the fall sowing of the bean ground to wheat. Are they best planted in hills or rows? W. S. — *Canandaigua, N. Y., Feb.*, 1850.

The best field beans to plant, if referencc be had to a market, is the small white, as it sells the most readily, and brings the highest price. The general mode of planting is in drills or hills; usually the latter. When planted in hills, there should be about six plants in a hill, and the hills about two feet apart. Judge BUEL states that the largest crop he ever raised (48 bushels to the acre,) was in rows. The bean is partial to a quick, dry soil. It is a very tender plant and will not bear the sligtest frost. It is therefore unsafe to plant them until frost is no longer to be apprehended. Thirty bushel to the acre would be a good crop, though much larger crops have been raised, and much smaller might be very easily.

When the beans are fully formed, and there is danger of frost, pull and throw them into heaps, in which condition the frost scarcely affects them. If the ground is not wanted for other uses, they may stand till the latest pods assume a yellow color. They are pulled with ease when the plant is mature, as the fibres of the root are by that time dead. This is more quickly accomplished with an iron hook-rake, or if the stalks are partially green, they can be mown, or cut with a sickle. If the vines are not dry, let them remain for a while in small heaps, and afterwards collect in large piles, around stakes set at convenient distances, with the roots in the center and secured at the top by a wisp of straw. When well dried, thrash, clean and spread them, till they are quite free from dampness.

The price of beans ranges from six to twelve shillings a bushel. Nine shillings is now the price in this market. They generally find a ready sale. The time a crop could be got off must depend much on the season. The long garden white bean, and the China bean with a red eye, ripen earlier than most others, and are very productive.

* * *

MESSRS. EDITORS. — Since my boyhood, I have been engaged in other business than farming, and all I know of it is what I then learned, and that in the old hobbling way, together with what observation I have made in riding about the country in the practice of physic, till four years ago; when I came in possession of a small piece of land, of some 22 acres, which I have endeavored to work to the best advantage. But I feel greatly the need of some experienced adviser, to enable me to do it *all* in the most approved manner. In my way of farming, I believe I have realized more profit than many do from a hundred acres; yet I am sensible that still greater improvement might be made, if I *only knew how.*

In reading your valuable publication, which I constantly peruse, I see that you have some communications to obtain answers to specified questions, and for this reason I address you. On my place I have all varieties of soil. Some half an acre, alluvial; six or seven acres, gravel, dry: seven or eight, clay entirely, and some muck.

Will leached ashes, from the ashery in our village, pay the expense of drawing on to any of the vartetics of soil above mentioned? Will plaster be good for any or all? If so, when is the best time to sow?

Will alluvial or gravel be best for carrots? I have a garden spot of some fourth of an acre of dry gravelly soil, which was rich when I came here, and which I have manured from the barn every year since I have had it. Last spring I covered it well with rotten manure. Will it be good for onions? If so, and you will give me the best method of raising, as to kind of seed, time of planting, how to fit the ground, &c., &c., in minutia, I will do it right, and report my success in the fall. I want to beat every body else. How much seed shall I want?

I read, in the January number, an account of what you call a large crop of beets. I believe I beat that last year, although I have not accurately measured the ground. I raised some 90 bushels on less than half that ground. What soil is best for quince — wet or dry — rich or poor? Will they grow from slips? D. SEAVER. — *Hume, Allegany co., N. Y., Feb.* 25, 1850.

Apply leached ashes to your gravelly soil and around your quince, apple and other fruit trees. Quinces will do best on a medium soil—neither wet nor dry. Hog manure, leached ashes, and spent lime, have produced the best crops of onions that we have ever seen. About three pounds of seed are required for an acre. Plant early and not too thick in the row, nor have the rows too close together. If you "beat every body," please write and let "every body" know *how* you do it.

THE MILCH COW.—S W. AND MR. WRIGHT.

MESSRS. EDITORS:—In your Farmer for March, is an article headed, "Milch Cow." The article seems to be intended to cast a doubt upon the capability of the cow, to impugn the judgment of the Journal of Commerce and the veracity of a "Traveler," as well as myself. Your friend Mr. "WRIGHT" has done himself a great "*wrong*," showing a lack of discretion not very creditable; but that is his affair, and not mine. Your correspondent may have been "hoaxed" by Mr. WRIGHT, in regard to the cow, the *pail*, and the milk; and it is very likely Mr. WRIGHT made "a fish story" of it. If he had adhered to the facts as *he heard them*, and in fact *saw them*, he would have stated that my noble cow *did*, for about six weeks in June and July, 1847, *give forty-two quarts of milk each and every day — pure milk*, without froth — and some days more. The quantity was ascertained by a tin quart measure, such as is in common use through the country; true, it had not been sealed by the County Sealer, but I do not believe it could vary so much as to invalidate my assertions. I repeat, therefore, that "the milch cow" did yield, in 1847, for about six weeks, forty-two quarts of milk per day. The quantity given by the same cow in 1845 and 1846 was about the same as in 1847, though in 1848 and 1849 the quantity was diminished, which I attribute to her calving early in the season, too soon for grass. The quantity she gave last year, for a time, was about thirty-nine quarts per day. I regret that she is not in a condition to give me a calf this season, otherwise I doubt not Mr. WRIGHT'S $500 would have been transferred to me. In her present state, I am offered, by a neighbor, one hundred dollars; but I dissuade him from taking her, as I doubt whether she will have another calf.

Mr. WRIGHT could not have seen a pail "with a strainer" here, as there never was such a pail about my house.

As to my under-drained fields, I will say, that I have laid on my farm 41,000 drain tiles of fifteen inches in length. S. W. may estimate the same in miles and fractions, and correct a "Traveller" if he can. Yours, &c., JOHN JOHNSTON.—*Near Geneva, March*, 1850.

IMPORTED SHORT-HORNS—BATES' STOCK.

In the August (1849) number of the Genesee Farmer, is an article by me on the Short-horns, which I imported last year for Mr. Sheafe, Col. Sherwood and myself. The January number contains strictures by S. P. Chapman, on so much of my article as relates to the Bull, Third Duke of Cambridge. As Mr. Chapman does not understand my views, and therefore misstates and misconstrues them, it is necessary to answer him. He makes many assertions and takes positions, which present questions and issues, so numerous, complicated and extensive, that, *at present*, I must leave them unnoticed. There is beside, *just now, a strong propriety* in not discussing these issues. As soon as *this condition* ends, *I shall resume the subject, and will fully consider them.* In this notice I propose merely to state my meaning in the paragraph, to a portion of which Mr. Chapman objects, as *he* understands it, and refute one of his positions. To be clear, I must re-produce the passage entire. Speaking of the Third Duke of Cambridge, I said:

> "I have great pleasure in knowing that I have brought to this country so superior a bull from the herd of that eminent breeder, Mr. Bates. He is the *only* bull in America got by Mr. Bates' *crack prize* bull, Duke of Northumberland (1940,) the best bull Mr. Bates ever bred. Mr Bates has *but one* more left got by the same bull; and Duke of Northumberland is now dead. Mr. Bates repeatedly told me that 3d Duke of Cambridge was more like his sire than any bull ever got by him. Breeders desiring the blood of Mr. Bates, can no where else in this country procure it *with such high characteristics of sty!e, quality, symmetry, and substance.*"

Mr. Chapman quotes *merely* the last sentence and discusses it alone. The whole paragraph being connected, and the last sentence the conclusion or deduction, and the whole having been the subject of remark, I will briefly state what it *only* means, and was meant *only* to mean. I mean by it, that I have brought to America a superior bull, from the herd of Mr. Bates; that this bull, 3d Duke of Cambridge, (5941,) is the *only* bull in America *got* by Mr. Bates' *Duke of Northumberland*, (1940;) that Duke of Northumberland, (1940,) was Mr. Bates' "*crack prize*" bull, and was the *best* bull Mr. Bates ever bred; that Mr. Bates has but one more bull got by Duke of Northumberland, (1940;) that the Duke of Northumberland, (1940,) is dead, and that Mr. Bates repeatedly told me that 3d Duke of Cambridge, (5941,) was more like his sire, (Duke of Northumberland,) than any bull ever got by him, (Duke of Northumberland.) In 1845, Duke of Northumberland died. In July, 1848, Mr. Bates owned but two bulls got by Duke of Northumberland, and these two were 2d Duke of Oxford and 3d Duke of Cambridge. I brought 3d Duke of Cambridge to America, and this left but one son of Duke of Northumberland, (1940,) at Mr. Bates', and Mr. Bates did not in his lifetime part with that son. I designed to place before breeders the fact, that there is in this country but *one* bull the get of Mr. Bates' *best* bull, and that if they wish the blood of Mr. Bates' they could no where else in America, than from Cambridge, get *Mr. Bates' blood, through the particular channel of a resembling and superior son* of Mr. Bates' best bull, Duke of Northumberland, (1940.)

The last sentence of the paragraph which I have quoted from my August article, is this: — "Breeders desiring the blood of Mr. Bates, can no where else in this country procure it with such high characteristics of style, quality, symmetry, and substance." This sentence is the text; its disproval the object of Mr. Chapman's whole article. Never was an unfortunate sentence so misconstrued. In an article printed in Canada, it is made the basis on which to charge me with having asserted, "that from Mr. Sherwood, [through 3d Duke of Cambridge,] and from him alone, the Duchess *blood* can be procured" [in this country.] In letters addressed to others, and by the receivers shown to me, this sentence is made to mean, "that the 3d Duke of Cambridge possesses more of Mr. Bates' Duchess blood than any other bull in America," and I am charged by its use with *so saying* and *designing so to say*. Mr. Chapman makes it mean the *same* thing, *but does so* by way of *inference*, or *deduction*. His words are: — "No one will deny, that if any one animal from a herd possesses the power of imparting to his produce 'higher characteristics of style, quality, symmetry and substance,' than any other animal from the same herd, he must possess more of the *choice* blood of that particular herd. To question this, is at once doubting the efficacy of blood animals." That is, my position, if it be *true*, *must* be true, because 3d Duke of Cambridge has more of Mr. Bates' *choice* blood than any other bull in America. This is the meaning which by deduction Mr. Chapman places on my words. Having done this, he proceeds to prove, by quoting Mr. Bates' opinions, in his own words, from public printed letters, that the *choice* blood of his herd, in Mr. Bates' opinion, is the Duchess blood. No one ever doubted this, who either knew Mr. Bates or had read his printed or private letters. I knew such was his opinion. Mr. Chapman then gives from the 4th vol. of the Herd Book the pedigrees of 3d Duke of Cambridge, and Mr. Vail's Duke of Wellington, and by these pedigrees shows that Cambridge has by his sire *one* cross of Duchess blood, and that Wellington has *two* by his sire and the sire of his dam. The precise quantity which Mr. Chapman gives to each, is ¼, i. e. 2-8, of Duchess blood, to Cambridge, and ⅜ to Wellington; and therefore he concludes, that Wellington must be a better bull than Cambridge. Logical conclusion! Now all this shows a total want of knowledge of breeding and of pedigrees in general; and in special of the particular pedigrees which Mr. C. gives of the animals under his consideration. But to explain this as *to the pedigrees*, would require *too much space now*, and I pass it.

If Mr. Chapman be correct, then it would be true that a bull got by one of Mr. Bates' Duchess bulls, dam by a Duchess bull, grand-dam *a poor roadside tack*, would be a better getter — would impart more 'high characteristics of style, quality, symmetry and substance' — than a bull got by a Duchess bull, out of a pure, full bred, stylish, short-horn cow, of another approved tribe. Such an absurdity, no one, I think, would maintain, though Mr. C.'s article *seems* to do so.

On Mr. Chapman's rule, if sires have each the same amount of Duchess blood, they would possess and impart equal "style, quality, symmetry and substance." Yet no two full brothers were ever equally good animals and equally good getters. Duke of Northumberland, [1940,] and 2d Duke of Northumberland, [3646,] were full brothers. The first was superior as an individual, and very superior as a getter. The last was far inferior to his brother as an individual: far inferior as a getter. The 3d and 4th Dukes of Northumberland were full brothers and twins. The 3d Duke Mr. Bates never used; he was far inferior, both as an individual and as a getter, to the 4th Duke. The 3d and 4th Dukes had *more Duchess* blood than their half brother Duke of Northumberland, (1940,) and were far, very far, inferior to Duke of Northumberland, as individuals and as getters. Mr. Vail's Duke of Wellington, (3654,) has more Duchess blood than his half brother Locomotive, (4242,) and yet Locomotive was a far better animal and better getter than Wellington. Mr. Harvey's bull Walton, (6658.) son of Locomotive, a distinguished winner even in Gt. Britain, is vastly superior to any thing ever got by Wellington. Duke of Cleveland, (1937,) the sire of the dam of Mr. Vail's Duke of Wellington, (3654,) was a Duchess bull, and was so inferior, that Mr. Bates says of him, "this bull never exceeded in weight forty stones of fourteen pounds per stone, when above three years old;" that is, 560 pounds dead weight; *not half* the proper weight of a *merely fair* animal of that age. (See the London New Farmer's Journal, Aug. 8, 1842.) Duke of Northumberland, (1940,) *at the same age*, weighed, live weight, 2520 lbs. Sink one third live weight, and his dead weight would be 1680 pounds; just *three times* the weight of Duke of Cleveland. Could any thing be *more despicable* than the Duke of Cleveland, (1937?) *Yet*, he had MORE *Duchess blood* than Duke of Northumberland, (1940,) by one half.

The second best bull, as an animal, ever bred by Mr. Bates, in his opinion, was the 1st Duke of Cambridge, (3639,) a full brother of 3d Duke of Cambridge, and winner of the head prize in his class at the show of the Royal Agricultural Society of England, in 1840—an animal for which he was offered more money than for any other, except Duke of Northumberland, (1940.) And yet 1st Duke of Cambridge had only one fourth as much Duchess blood as Duke of Cleveland, (1937.) 1st Duke of Cambridge was refused to Earl Spencer by Mr. Bates, at a very large price, and when sold to go to Australia, Mr. Bates said of him, "He is too good a bull to remain in England, out of my own herd." And so he was exported at twenty-one months old. Mr. Bates' Duchess bull Short-tail, (2621,) the sire of Mr. Vail's Duke of Wellington, had more Duchess blood than Belvedere, (1706,) for Belvedere had none; and yet Short-tail was an inferior animal, deficient in every point, except his brisket and his handling, and was at best only a moderate getter; while Belvidere, (1706,) was magnificent as an animal and the best getter that Mr. Bates ever used, and was the sire of the best animals he ever bred.

Mr. Renick, the agent of the Ohio Cattle Company, who went to England to purchase for them, said of Belvedere, that "he was the best and finest bull he ever saw in England or America." The best cow which I saw in Mr. Bates' herd was not a Duchess, and *was not* got by a Duchess bull; but *was* by Belvedere, (1706.) The poorest of the whole herd was a Duchess, and *was* got by a Duchess-bull. The only other Duchess cow, *got by a Duchess bull*, was a very superior cow. These two last were equal in Duchess blood; and yet, their produce were like themselves — from the superior one, superior, from the inferior one, inferior.

Oxford premium cow, the dam of Mr. Vail's imported Duke of Wellington, (3654.) was got by Duke of Cleveland, (1937.) Her half-sister Oxford, 2d, was got by Short-tail, (2621.) Short-tail and Duke of Cleveland had the *same precise amount of Duchess blood*, and of course Oxford premium cow and her half-sister Oxford, 2d, had also the *same precise amount* of Duchess blood. Yet Mr. Bates never kept on his place any thing out of Oxford premium cow, which he *could* sell; never used a bull *out of Oxford premium cow*, for any purpose, *even to get steers*. He *never* sold an animal out of Oxford, 2d, at all — and in a letter to Mr. Vail, printed in the American Agriculturist, he says he would not sell her produce, of which he then had four, for five hundred guineas [$2,500] each; nor, indeed, would he sell them at any price. The full brother and the sons of Oxford, 2d he used to his whole herd, except herself and her daughters. And Mr. Bates was right; for Oxford, 2d, and all her produce are vastly superior to Oxford premium cow and her produce.

Mr. Vail commissioned me, when in England, to select from Mr. Bates' herd a young bull. I could not get for him such a one as I approved, at a *suiting* price; and I did not therefore execute the commission. Mr. Bates offered me a bull calf, by 2d Earl of Beverly, (5963,) — a good Duchess bull — dam Oxford, 4th, by Duke of Northumberland, (1940,) *grandam Oxford premium cow*: but a regard for Mr. Vail's interest made me refuse the offer, though the *price suited*. I saw the *calf's dam*; I saw Mr. Bates' *opinion*, as shown by *his practice*, and acted accordingly, and refused the calf.

I have cited these peculiar examples, to show by animals having Duchess blood, the utter absurdity of Mr. Chapman's notions of breeding. I have compared animals to show his errors, and he set me the example. I have *confined* myself, in *my comparison*, to the blood that he selects for his comparisons, and have, like Mr. C., quoted Mr. Bates' opinions, as printed, as practical ones.

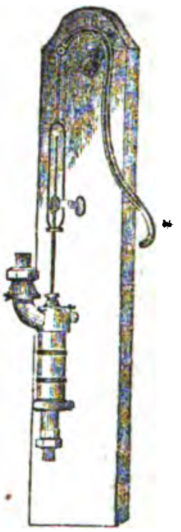
Having refuted the positions of Mr. Chapman, shown him his error, and proved that my position may be true, and not in consequence of the reasons he assigns; let me state what my words so often quoted *do* mean, what they were *intended* to mean, and what they *only can* be *made* to mean, by *any* construction of the words of the sentence. I mean and *only* mean, that 3d Duke of Cambridge will impart Mr. Bates' blood, in some degree, more or less; that in himself he is the bull having the most "style, quality, symmetry and substance," of all the bulls that have ever come to America *from Mr. Bates' herd;* that he will get produce with more "style, quality, symmetry, and substance," than any bull from Mr. Bates' herd in America. Now I meant *this*, and *nothing more;* and *not* that he *had* or would *impa;t* more *Duchess* blood.

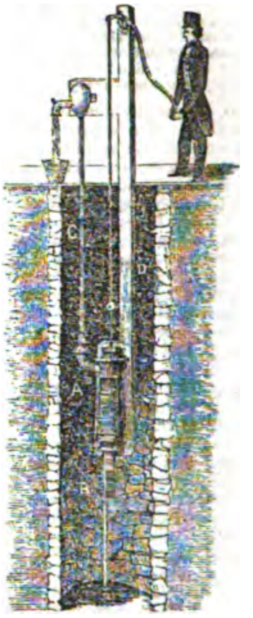
Mr. Chapman does not pretend to deny my positions, when construed as I have here set them forth. *He makes another issue.* I admit that Mr. Vail's Wellington has more Duchess blood than Cambridge. I never thought he had not; never said he had not; and never wrote nor spoke a sentence that would in any manner directly or indirectly indicate such a thing; and should not, and but from misconception, I never would perhaps have been charged, directly or by deduction, with the assertion, that "from Mr. Sherwood, and *from him alone*, the *Duchess blood* can be procured," in this country; nor with the assertion, direct or consequential, "that Cambridge has more Duchess blood than any bull of Mr. Bates' breeding in America."

Mr. Chapman institutes a comparison between Mr. Vail's animals and Cambridge, in point of *Duchess blood*, giving pedigrees. I could *investigate* these pedigrees, and *will hereafter*. He wisely makes *no* comparison between those animals in their *physical* character. I could, but will not *now*, but will hereafter. I will merely say, that excellence in the physical animal consists of "style, quality, symmetry and substance;" and excellence in blood consists in having good blood, *unmixed with bad blood;* and as like begets like, it is necessary that *animals should have their descent, not only from pure blood, but from animals who were characterised by physical excellence.* I know Mr. Bates' herd, and certainly am not to be instructed in the excellence of Mr. Bates' Duchess tribe, by those who have never seen a single animal of it. Mr. Chapman has stated matters to which I now make no allusion; but I beg to assure him that I will return to them hereafter, when it will be more proper to discuss them than now, and when I shall not be charged, as I have been, with views and purposes which I have never entertained. A. Stevens. — *February*, 1850.

DOUGLAS' PATENT SUCTION AND FORCE PUMP.

Douglass' *Suction and Force Pump* we think a very useful article. Farmers who depend upon wells for a supply of water for stock, as well as for domestic purposes, often feel the need of a force pump, by which they can force water into cisterns, reservoirs, or troughs, as may be needed for use. Force pumps generally have been too complicated and too expensive for general use.





In the engraving, A is the force pump, fastened to a plank about 25 or 30 feet from the surface of the water. B is suction pipe from force pump to the water. C, discharge pipe, terminating in a chamber or barrel with a spout, causing the pipe to throw a more uniform stream.

The inventor says "these pumps are designed to be used for deep wells or for forcing water up into Bathing Chambers, Factories, &c., &c.; and by the application of hose, may be used for the protection of buildings in extinguishing fires. They are adapted for being worked either by hand, water, steam, wind, horse, or any other power, as may be desired. Thus they may be used for conveying water by means of pipes from wells, springs, or streams, to any point or station required."

Price $15 and upwards, according to size. For sale at the Genesee Agricultural Warehouse, Rochester.

* * *

Caution. — Do not inhale the smoke of matches while ignited. It is highly poisonous.

METEOROLOGICAL ABSTRACTS OF 1848 AND 1849.

BY LEANDER WETHERELL.

THE following abstract is from the Meteorological Observations kept in Rochester, during the years 1848 and 1849. The city of Rochester is situated on the Genesee river, seven miles from Lake Ontario: latitude 43° 8′ 17″; longitude 77° 51′ West from Greenwich, England. Elevation, 506 feet above tide water.

Monthly mean temp. of Jan.	1848,	30.66;	do.	1849,	23.14
“ “ Feb.	“	28.56;	do.	“	22.13
“ “ Mar.	“	32.25;	do.	“	34.57
“ “ April	“	44.70;	do.	“	41.85
“ “ May	“	59.72;	do.	“	51.10
“ “ June	“	67.63;	do.	“	66.01
“ “ July	“	69.23;	do.	“	70.05
“ “ Aug.	“	72.81;	do.	“	69.23
“ “ Sept.	“	58.20;	do.	“	60.20
“ “ Oct.	“	49.33;	do.	“	48.26
“ “ Nov.	“	35.81;	do.	“	46.66
“ “ Dec.	“	34.35;	do.	“	28.01
Annual mean temp. of the year	“	48.55;	do.	“	46.68
Highest degree of the year....	“	94.00;	do.	“	95.00
Lowest....................	“	0.00;	do.	“	*-9.00
Greatest annual range	“	70.00;	do.	“	55.00
Warmest day in the year......	“	Aug. 16;	do.	“	July 10
Coldest	“	Jan. 10;	do.	“	Feb. 16
Winds—North, ...	“	17½ d'ys;	do.	“	33 days
...... Northeast,..........	“	24½ “ ;	do.	“	36½ “
...... East, ...	“	11½ “ ;	do.	“	7 “
...... Southeast, ...	“	33 “ ;	do.	“	25½ “
...... South,..............	“	23½ “ ;	do.	“	28 “
...... Southwest, ...	“	62 “ ;	do.	“	59 “
...... West, ...	“	67 “ ;	do.	“	55½ “
...... Northwest,..........	“	[illegible] “ ;	do.	“	120½ “
Prevailing wind of the year..	“	NW. ;	do.	“	NW.
Number of fair days,..........	“	[illegible];	do.	“	162
...... cloudy..............	“	177½;	do.	“	203
...... days on which rain fell	“	111 ;	do.	“	119
...... days “ snow	“	57 ;	do.	“	69
...... days “ rain & snow	“	23 ;	do.	“	14
Amount of rain & melted snow	“	32.03 in.;	do.	“	32.87 in
First frost in the autumn of...	“	Sept. 27;	do.	“	Oct. 2
First snow in the autumn of...	“	Sept. 22;	do.	“	Oct. 30
Robin first heard	“	March 8;	do.	“	March 9
Maple tree in bloom	“	Mar. 28;	do.	“	Mar. 27
Mean temp. of the Winter of	“	30.48:	do.	“	26.54
“ “ Spring	“	45.58;	do.	“	26.54
“ “ Summer	“	69.89;	do.	“	68.43
“ “ Autumn	“	47.11;	do.	“	51.71
Number of fair days in Winter..	“	29½;	do.	“	21
...... cloudy	“	61½;	do.	“	69
...... fair days in Spring...	“	50½;	do.	“	39
...... cloudy	“	41½.	do.	“	53
...... fair days in Summer..	“	65 ;	do.	“	64½
...... cloudy	“	27 ;	do.	“	27½
...... fair days in Autumn..	“	40 ;	do.	“	45½
...... cloudy	“	51 ;	do.	“	45½
Am't rain & melted snow, wint.	“	7.45 in.;	do.	“	6.79 in.
Amount of rain, Spring	“	7.03 ;	do.	“	7.60
Amount of rain, Summer	“	10.07 ;	do.	“	8.89
Amount of rain, Autumn.....	“	6.53 ;	do.	“	11.39
Number of days on which rain fell during April and May, (*grass season.*)	“	26 ;	do.	“	31
Do. from May 1 to end of Aug.	“	55 ;	do.	“	50
Do. from June 1 to end of Oct.	“	69 ;	do.	“	59
Inches of rain during April and May, ...	“	5.26;	do.	“	4.25
Do. from June 1 to end of Oct.	“	15.80;	do.	“	16.97
Mean temp. April and May....	“	52.21:	do.	“	46.48
Do. from May 1 to end of Aug.	“	67.35;	do.	“	64.10
Do. from June 1 to end of Oct.	“	63.04;	do.	“	62.75

*9 below Zero.

MR. LAWES, a contributor to the agricultural journals of England, says that April and May constitute the grass season, on the island of Great Britain. The wheat season begins with May and ends with August: the turnep season begins with June and ends with October. The grass season here is from the 20th of April to the end of June; the wheat season, May, June and the first half of July, the turnep season, from July first to the 25th, to the end of September.

A LARGE CALF.

ON the 27th ult., a cow belonging to SAMUEL N. FRANKLIN, who now resides on the farm of MATHIAS HUTCHINSON, produced a calf, well formed in every respect, which, when twelve hours old, weighed one hundred and fifty pounds. As it was weighed more than once, by different persons, we think there is no mistake. The cow is above the middle size, of native breed, and about four and a half years old.

About the same time, the cow of our neighbor, ABRAHAM KING, produced a heifer calf, which weighed one hundred and twenty pounds.

Again: DAVID KING, residing in the same neighborhood, a month since, counted beside one of his sows eighteen young pigs. MATHIAS HUTCHINSON. —*King's Ferry, Cayuga Co., N. Y., 3d mo.*, 1850.

LIVE FENCES.

MESSRS. EDITORS:—Having been a reader of the Farmer for a few years, I have been both pleased and instructed. In an especial manner I have a deep interest in what has been said about live fences. The time is not far distant when fencing materials will be in great demand; and some are beginning to feel it already. Although my father's farm has plenty of rail timber for the present, he has thought fit to commence raising hedges, so that when he needs them he will have them. The object of writing this is to find out which is the best material. We have some of the English Hawthorn growing, but it is affected by a kind of white lice, something like those which are generally found on beech trees. Whether they will injure them or not we do not know. Some recommend Honey Locust very highly.

I would like to know your opinion concerning Buckthorn—whether it will make a durable fence and a good one; and when is the best time to plant it for a fence—in the fall, or spring; and where the seed can be obtained. I would also like to know whether the Osage Orange will answer for fencing in this climate. I would like to know, Messrs. Editors, which you would prefer if you were going to plant fences for yourselves. Where can the materials for propogating be obtained, and at what price? What is the best way of propogating?

If you will answer these inquiries through the Farmer, you will oblige—D. S. CROZIER.—*Benton, February*, 1850.

REMARKS.—For live fencing, in this country, there are in use—

1st. The HAWTHORN, European and American.

2d. The BUCKTHORN, native of the New England States.

3d. The HONEY LOCUST, native of the Western States.

4th. OSAGE ORANGE, native of the south and south west.

These are all strong, deciduous, thorny plants, that under favorable circumstances make excellent live fences. The best of them all, perhaps, is the Hawthorn, were it not that they are subject to attacks of the *wooly aphis*, of which our correspondent complains, and of the *slug*, that devours the foliage of all this natural family of plants and some others. We know of many excellent hedges in this country of both the English and American thorn, and we believe that notwithstanding the difficulties we have alluded to, good hedges may be grown of one or the other, or both species, in all the Northern and Middle States. Our native varieties are very vigorous, and make a hedge in a very few years; but their habit of growth is not so dense as the English, and hence they require a heavier system of shearing or shortening to keep them close and impenetrable.

The BUCKTHORN has come into great favor of late. It is a vigorous and naturally a bushy plant, one of the hardiest of all our native species, and never attacked by disease or insects of any sort. During all the growing season, and till very late in the fall, its foliage never loses its rich deep verdure. It has but one defect, and that is, a deficiency of thorns. With more thorns it would be all we could desire for fencing in the Northern States. It has thorns, but they do not make their appearance till five or six years old, and then on the points of the shoots only. If the hedge is kept well furnished with shoots from the bottom, the fence may prove a barrier to cattle after the sixth or seventh year of its growth. No other plant is so easily raised or converted into a hedge. Plants may be bought at the nurseries at $5 per 1000. H. L. EMERY, of the Albany Agricultural Warehouse, sells the berries at $13 per bushel, and clean seed at 75 cts. per quart. Spring is the best time for planting. Mr. DOWNING recommends the plants to be cut to within an inch of the ground line; the hedge to be planted in double rows, and the plants placed alternately, thus —

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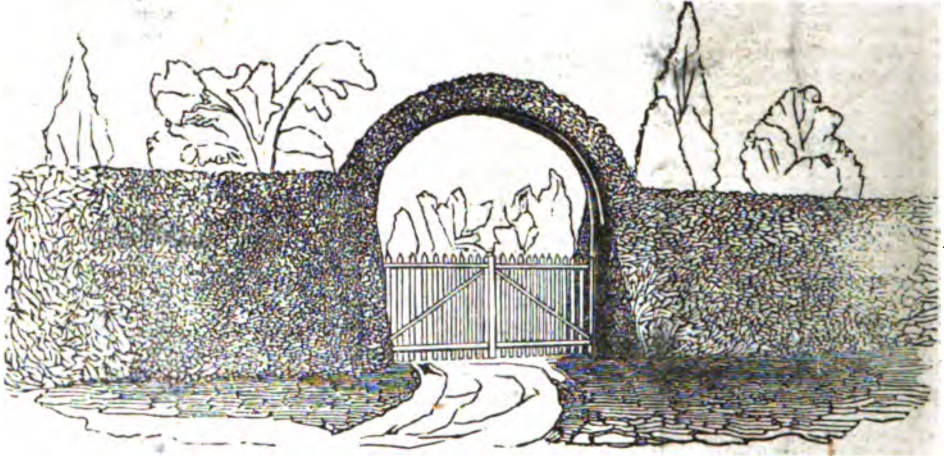
the rows six inches apart and the plants one foot apart in the rows. This requires 32 plants to a rod, or 2000 plants to 1000 feet.



BUCKTHORN HEDGE.

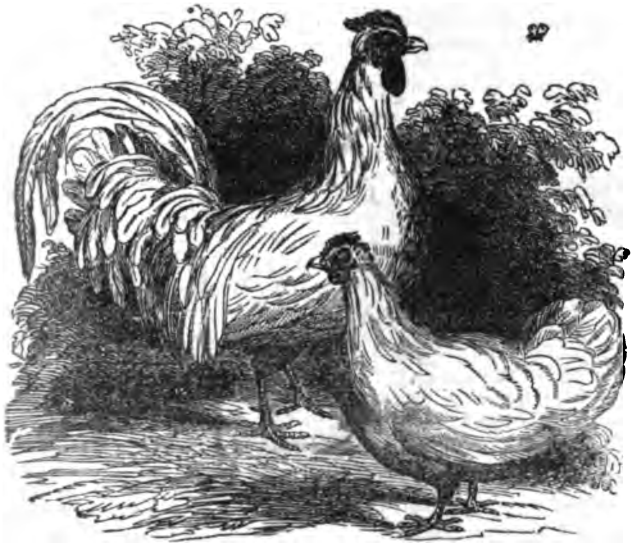
We give an engraving of a Buckthorn hedge, on the grounds of JAMES C. LEE, of Salem, Mass.

The HONEY LOCUST is a hardy vigorous tree with formidable thorns over every part of it. If well grown, we know of no other plant that would form such a complete and powerful hedge in a short time. Plants are sold at the nurseries at $5 to $10 per 1000, according to the age. Seeds are usually to be had at most of the seed stores. The seeds have a hard covering that prevents them from vegetating soon if placed in the ground dry. The proper way is to place them in a vessel and pour boiling water on them, and leave them until the covering begins to burst; then it may be mixed with sand or dry earth to facilitate its sowing. The soil should be light and the covering an inch deep. The plants are fit for hedge rows at one year from the seed, and may be planted as recommended for Buckthorn. We have seen excellent hedges of this plant, and we feel sure that it may be advantageously employed in all parts of the country, and particularly in prairie sections of the west, where it might be allowed to attain more than ordinary hedge height for purposes of shelter. The great point to be observed in this, as in all other live fences, will be to encourage a dense and vigorous growth of branches at the bottom.

The OSAGE ORANGE, we fear, will not prove hardy enough for the Northern States. It is a southern tree, and grows vigorous until late in the fall. The young shoots scarcely ever escape being killed a foot of their length. In New Jersey, Delaware, most of Pennsylvania, a great portion of the Western, and all the Southern and Southwestern States, it will no doubt answer well. Wherever it proves hardy we would give it the preference to all other plants, as it combines in a greater degree the requisite qualifications. Its growth is luxuriant and bushy, its foliage bright and shining, and in all parts of both old and young wood covered with stout, sharp thorns, equal to the Honey Locust. It requires, like the Locust, severe and constant pruning to prevent the upright growth from injuring the denseness and symmetry of the hedge. Plants are sold at the nurseries at about $5 per 1000 for one year plants. Seed is advertised by M. B. BATEHAM of Columbus, Ohio, at $1.25 per quart. We have always succeeded well by soaking the seed, for a day, in hot water before sowing. Mr. BATEHAM says "a patch of ground two or three rods square will be large enough for a quart of seed, and will produce 3000 to 4000 plants if successful." Planting is done in the same man- as recommended for the others.

FOWLS, FOWL BOOKS, FOWL HOUSES, &c.

THE letters we are constantly receiving, asking information in regard to the best and most profitable breeds of chickens, the best mode of constructing chicken houses, &c., not only shows that the subject is beginning to attract special attention at this time, but makes it our duty to give the desired information, as far as we can consistently with the pressure of other and important matters upon our columns.



THE DORKING FOWL.

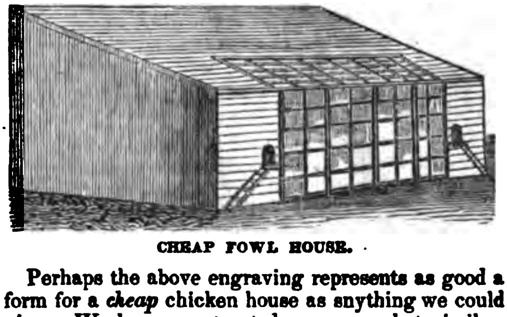
The book publishers have been awake, and are prepared to meet this increased demand for information on the subject. Several works are already before the public, and others are to follow. J. P. JEWETT & Co., of Boston, have published a small work at twenty-five cents, in paper covers, which is a very neat and cheap work, and can be sent by mail. We have also received from the publisher, C. M. SAXTON, New York, through D. HOYT, bookseller, of this city, a copy of "*The American Poultry Yard*," by D. J. BROWNE. It is certainly a beautiful book, and not less useful than beautiful. Some of the descriptions of fowls in this book accord better with our experience than any we have before seen published. The accompanying engraving and description of the Dorking fowl is from this work:

"For those who wish to stock their poultry yards with fowls of most desirable shape and size, clothed in rich and variegated plumage, and, not expecting perfection, are willing to overlook one or two other points, the Dorkings are the breed, above all others, to be selected. They are larger-bodied, and of better proportions, according to their size, than any other variety I have yet seen, their bodies being rather long, plump, and well-fleshed; and the breeder, as well as the housewife, generally beholds with delight their short legs, full, broad breasts, little waste in offal, and the large quantity of good and profitable flesh, the flavor and appearance of which are inferior to none.

"The cocks are magnificent. The most gorgeous hues are frequently lavished upon them, which their large size and peculiarly square-built form display to great advantage. The original Dorkings are said to have been white, but such are now seldom to be seen. During all my rambles, in various parts of the country, only on one or two occasions did I meet with pure white birds. In all, however, as far as my knowledge extended, when pure-blooded, more or less white prevailed; but the cloudings and markings of the plumage were unlimited. Many were marked with bands, or bars, of ashy-grey, running into each other at their paler margins. Some had the hackles of the neck white, with a tinge of yellow, and the body of a darker or brownish-red, intermixed irregularly with white; while others were beautifully variegated with white, black, green, and brown, or were nearly uniform in their shades from a light cream color to almost black.

"Both the cocks and the hens are usually short-legged, thickly-feathered, having fine, delicate heads, with single, double, or large, flat, rose-like combs, which, when they are in high health, adds very much to their appearance, particularly if seen in the bright rays of the sun. Their legs are invariably white, or flesh-colored, each often armed with one or more toe-like claws; and, instead of four toes to each foot, a fifth one protrudes from the same root as the heel toe in the common varieties, which is generally regarded as a distinguishing mark of the breed.

"The weight of the Dorkings, at maturity, varies from five to eight pounds, and full-grown capons have been known to weigh ten or twelve. Their eggs are usually of a clear white, but sometimes of an ashy-grey color, rather large in size, very much rounded at both ends, and of an excellent flavor. The hens are not "everlasting layers," although they produce eggs in reasonable abundance, but at due or convenient intervals they manifest a desire to sit, in which they often most strenuously persevere. In this respect, they are steady and good mothers when the little ones appear. Their young, in this country, have thus far proved very hardy and easy to rear. The chicks are generally brownish-yellow, with a broad, brown stripe down the middle of the back, and a narrow one on each side."



CHEAP FOWL HOUSE.

Perhaps the above engraving represents as good a form for a *cheap* chicken house as anything we could give. We have constructed one somewhat similar, of rough boards well battened, and we find that it makes a tolerably warm and a convenient house. We shall have to defer remarks on the interior arrangement, mode of constructing nests, roosts, &c., for another number.

Horticultural Department.

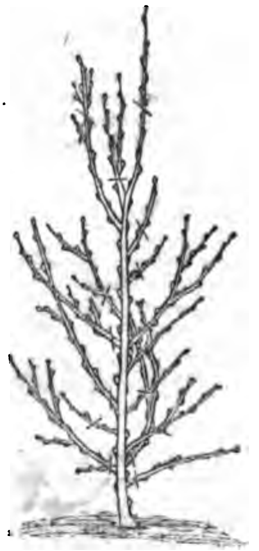
EDITED BY P. BARRY.

A FEW HINTS ON THE PRUNING OF TREES AT THE TIME OF TRANSPLANTING.

About this season of the year there is not a day, nor scarcely an hour, that we do not hear the questions asked — "Do trees require to be pruned before planting?" — "How much should I prune trees before planting?" — and so on. The truth is, that although almost everybody is planting trees, very few are aware of the importance of pruning, or understand clearly the objects it is intended to attain, or the proper mode of doing it. A great majority are satisfied with digging a hole and putting the roots of the tree into it, and leaving it there just as it came from the nursery. Hence it is that so many trees utterly perish after planting, and so many more grow feebly, and slowly, and ill-shaped.

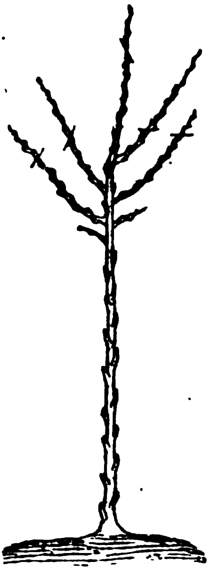
Pruning at the time of transplanting is performed with two objects in view — one of which is to restore the equilibrium between the roots and branches, which the removal of the tree had injured by the unavoidable mutilation of the roots; and the other is to mould the tree into such a form as taste or the circumstances of its position may dictate. To accomplish either or both of these ends, we must resort to pruning; and first, let us consider it with reference to restoring equilibrium between the roots and branches.

We take, for illustration, a peach tree of one year's growth from the bud, (fig. 1,) four to five feet in height, and furnished with vigorous branches, nearly from top to bottom. Our rough sketch is made from a specimen which has the general appearance of some thousands in nursery rows, and this we presume to be the ordinary character of yearling peach trees, when grown on good soil, with clean culture, and no summer pruning or shortening of the side branches. Now it seems to us that it must appear very evident to any one who will reflect on the matter for a moment, that after this tree has been taken from the ground, with its large roots necessarily shortened, and, if long out of ground, nearly all the fibrous roots dead, it will be impossible for it to sustain such a large surface of top. If left entire, the demand that so many buds, such a large growing surface, would make upon the roots, could not possibly be supplied — a great many will consequently perish, and probably the whole tree. This is the actual history of thousands of peach trees every year. A few days ago we looked into a gentleman's little city garden, and saw a dozen peach trees that had been planted last fall. They had precisely the appearance indicated by fig. 1. We asked him if he did not intend to prune them. He replied that he was not aware that it was necessary. But so necessary is it, that unless he prunes them, he will find that in the month of June or July next they will be "as good as dead." Such a tree we would prune in this way for a *low standard*, (which is the best for both garden and orchard in this country.) We want a clean stem of at least three feet; but it will not do to strip the branches off at once. We remove entirely the longer ones only, and shorten all the smaller ones to two or three eyes. When a peach tree is pruned too heavily or closely at one time, it is very likely to gum and canker — the sap not being absorbed by new leaves or branches, becomes stagnant and bursts the bark. Severe pruning, on any of the stone fruits particularly, will result in disease. On each side of the leading shoot we see a strong branch that has outgrown and weakened it. If we wanted to continue the tree farther in a vertical direction, with a leading shoot, we would choose the strongest of these two side branches for a leader, and cut back the other and the original leader to two buds; but, as we wish to form the head of the tree, we simply cut the original leader out to a bud or two, and top the other two strong side shoots to make them branch out. The small shoots left shortened along the trunk are cut off clean next season, or in the summer as soon as the tree is in a condition to spare them. In all cases the cut is made at a good, plump bud; and if the shoot is wanted to take a vertical direction, the bud must be on the upper side of the branch; if a horizontal direction, on the lower side.



1. *Peach tree one year from bud.*

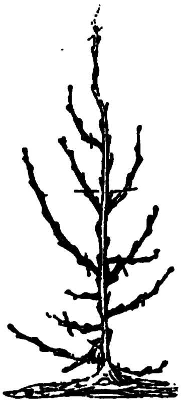
In trees where the side branches have been kept down by summer pinching, or by having been closely planted, the trees will have two to two and a half feet of a clear stem, with a branching head; and in this case the pruning will be similar to the pruning of the ordinary nursery standard trees, such, for instance, as a two year old cherry, figure 2. The branches have merely to be shortened, as shown by the cross lines. In all



Standard cherry tree, two years old.

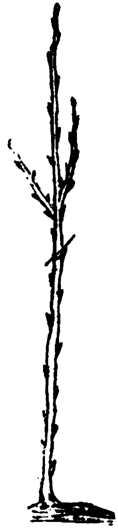
cases where a branch has a greater vigor than is consistent with the symmetry and balance of the head, it should be cut shorter in order that the sap may pass to the weaker ones.

Pruning to produce certain forms is a different thing. We will illustrate this by two young pear trees (fig. 3 and 4) of one year's growth from the bud or graft, worked on the quince at the surface of the ground. The specimens that we have taken our sketches from are a *Bloodgood*, (fig. 3,) four feet high and furnished with numerous side branches, and a *Duchess d'Angouleme* without branches, except two small shoots at the top of the second or fall growth. Now, supposing that these are intended for pyramidal trees, we would prune them as follows:— In the Bloodgood (fig. 3) we cut off entirely the lower branch at the base. This gives space enough between the ground and the first tier of branches for the free circulation of air. The other branches we shorten, as shown by the cross lines in the cut. The stronger these branches are, and the nearer they are situated to the extremity of the leading shoot, the closer they must be cut, in order to produce equality between the stronger and weaker branches, and to retain the sap sufficiently in the base of the tree. These are the main points to be observed in conducting pyramidal trees. The very small branches are not cut at all, in order to favor their growth. One of them, that has a drooping direction, should be tied up to increase its vigor.



Dwarf pear, one year from bud, with side branches.

The *Duchess d'Angouleme*, (figure 4,) that has only two weak shoots near the top, must be cut back far enough to ensure the production of side branches near the ground; and this will depend a good deal on the strength and prominence of the buds. In some cases it would be sufficient to cut the leading shoot back to the fifth bud, and the two side shoots to two buds each; but in general we must go lower and cut to a strong bud below the side shoots; and if, even after this, the lower branches do not push with vigor enough, the upper shoots must be pinched off early in the season, to check the growth above and favor it below. It very generally happens that the two or three buds nearest the leading shoots push so vigorously as to injure it. This must be prevented by timely pinching in the summer; and in all cases where a branch is likely to acquire undue vigor, to the detriment of others and the balance of the tree, it must be checked by pinching. We shall treat of this fully in season.



Dwarf pear, one year from bud, without side branches.

THE best pea sticks are Hazel or Filbert, Privet, and Lilac bushes — all other woods tried, last but a year or two, while these last many years, especially the lilac.—*Revue Horticole, Paris.*

THE OSWEGO BEURRE PEAR.

MR. P. BARRY: — In accordance with a promise made to you last fall, when I presented you specimens of the Oswego Beurre, I will give some further history of this pear, the result of three years' experience since it was described by Mr. DOWNING, in the January number of the Horticulturist for 1847. I ate my last specimen the 19th of February inst. They were kept till this late period of winter, by packing in boxes with shorts. Every week, during the winter, previous to this date, I have eaten them, either baked or raw. Last fall a portion of the crop was kept on the tree much later than on any former year. My specimens were sound during December and January. The last, eaten the 19th of this month, was about one third decayed on one side, sound at the core, and retained the peculiar flavor of the variety well. If the Oswego Beurre be allowed to remain on the tree till a sufficiently late period in the fall, I believe it may be relied upon in this latitude, both for the table and for cooking, from the middle of October to the last of January.

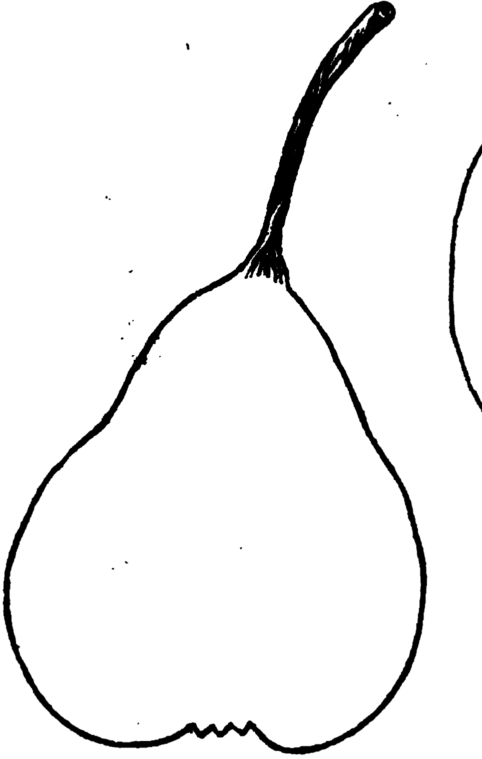
From the fact that nearly all of the specimens heretofore tested by pomologists have been picked before fully grown, it has been pronounced an acid pear. Mr. J. J. THOMAS, in the last edition of the Fruit Culturist, has very honestly no doubt said of the Oswego Beurre, it is "regarded as fully first rate by those who like the vinous flavor of the Brown Beurre or Beurre d'Aremberg." I ate a specimen of the Oswego Beurre with a Beurre d'Aremberg, on the first of January last, and found them nearly as far apart in flavor as the Lady Sweeting and Rhode Island Greening apples, tested at the same time.

Mr. N. GOODSELL, the pioneer pomologist of Western New York, who ate specimens with me, last Christmas, pronounced it one of the most saccharine pears he ever tasted. From the early and profuse bearing of this saccharine pear, I believe it would be the most profitable article to cultivate, (whether pomonal or vegetable,) for the purpose of manufacturing sugar.

Although a handsome pear, and uniformly fair, it has less of beauty than its parent, the White Doyenne. It has the red cheek, occasionally, of the latter, and approaches it nearer in general form than Mr. DOWNING's cut would indicate. Beauty excepted, it has been pronounced by the Fruit Committee of our Horticultural Society here superior to that "ne-plus ultra of perfection in flavor and beauty," the White Doyenne, or Virgalieu. J. W. P. ALLEN.— *Oswego, Feb.* 27, 1850.

We may add, that, from our own experience, the Oswego Beurre proves a vigorous and beautiful grower, and an early and prolific bearer, both on pear and quince. — ED.

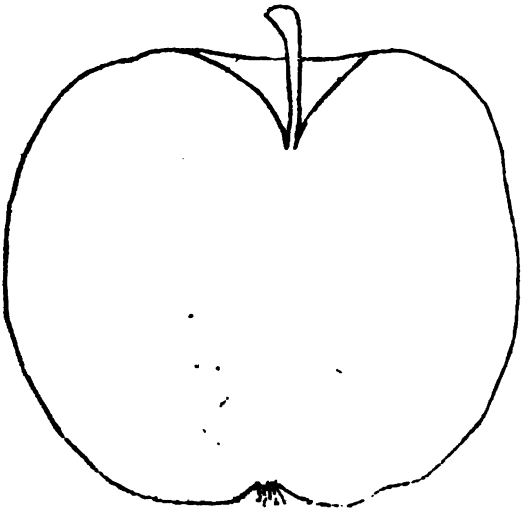
SWEET APPLES. — The scarcity of sweet apples for market should induce our fruit growers to cultivate more extensively. Let me advise, in addition to the Talman Sweeting, Chillicothe Sweet, Bailey Sweet, and other good varieties, and that the Green Sweeting be more generally grown. It is one of the finest eating apples, and for cooking, it is one of the best; and does a family want to use several barrels through the winter, it will keep firm and sound until May, when all other sweet fruit is gone. J. H. WATTS.



TYSON PEAR.

This pear, so far as we are informed, is universally acknowledged to be of the first class. It originated in a hedge near Philadelphia. The first full description published of it was in Hovey's Magazine, Vol. 12. Since then it has been frequently noticed in pomological works, periodicals, reports, &c. The largest bearing trees that we know of in Western New York, are of some ten or twelve year's growth, or more, in the orchard of Asa B. Smith, Esq., of Macedon, father of W. R. Smith, the well known nurserymen of that place. We saw these trees in in 1848, bearing a good crop of fruit. On the pear stock it is said to be tardy in coming into bearing, but it succeeds admirably on the quince, and those who wish fruit soon will choose to grow it in this way. The tree grows very much like the Seckel, but the shoots are rather longer and not quite so stout. They have the same dark, reddish brown bark.

Size medium, being usually from two and a quarter to two and a half inches long, and about two inches in diameter. Form variable, but most generally pyramidal, rounded off at the crown, and tapering gradually towards the stem, which is attached to it by a fleshy junction, quite protuberant on one side. Exterior color yellow, slightly russetted, covered somewhat profusely with black specks, and shaded with brilliant red on the sunny side. Texture fine, melting, juicy, and very rich. Color of flesh, white. Flavor richly aromatic, very sacharine, and exceedingly delicious. Core quite small. Seeds small, but plump, and of a brown color. Stem from one to one and a quarter inches long; obliquely curved and somewhat stout, as well as fleshy at its junction with the fruit. Eye round, of moderate size and depth, with the segments of the calyx short and reflexed.



THE BOURASSA APPLE.

In Lower Canada and the northern portions of this country, this is esteemed one of the very best of apples, ranking with the *Fameuse* and *Pomme Gris*, which are considered the standard of excellence. At our late exhibition of winter fruits, this variety was shown, and we believe pronounced by nearly all to be one of the highest flavored and best apples on the tables; some, indeed, went so far as to call it the best. For our own part, however, we think it a hardy, valuable variety for the north, high flavored and fine, but it lacks the tenderness, juicyness and delicacy of the Melon or Northern Spy, and for which we, at least, are disposed to give them the preference.

It is an apple that bears carriage exceedingly well, and a little frost does not hurt it. It keeps well, seldom becoming rotten at the core. It should occupy a prominent position in the orchard in cold northern localities. Size above medium. Form roundish conical, slightly ribbed. Stalk about three-fourths of an inch, slender, and inserted rather deeply in a pretty wide cavity. Calyx large, closed, and set in a shallow, plaited baisin. Skin reddish russet, some bright red on the sunny side. Flesh white, fine grained, crisp, not very juicy, with a sprightly, agreeable flavor. November to April.

INFLUENCE OF THE STOCK UPON THE GRAFT.

Mr. Barry: — I thank you for what you said in regard to the effects of stock upon grafts. How will you reconcile the statement of a friend of ours, who says he put scions of the "Northern Spy" into two trees, standing within two rows of each other, one on a Rhode Island Greening grafted tree, which produced beautiful and good fruit, while in the other, a natural tree, the fruit was sourer even than vinegar. Soil the same; and the trees but a few feet apart. How is all this. You must explain. J. H. Watts.

We have by no means denied that the stock has an influence on the graft. We are well acquainted with many facts which go to prove that it has; but we remarked that in grafting it would be neither safe nor practicable to any extent, to "graft only in stock that assimilate with the scions, in quality, flavor, and growth." A variety requiring such a course of treatment we should consider worthless. In regard to this point, "Lindley's Theory of Horticulture" says: "It may be as well, however, to add, that there are some well attested facts relating to the preference of particular varieties for one kind of stock rather than another, which we cannot explain, but which are so important in practice as to deserve to be studied carefully." We know very well that some varieties of pear grow better and bear larger and finer flavored fruit, on the quince than on the pear stock, and some will not grow on it at all.

Some apples do much better on the Paradise stock than others. We are obliged for the fact communicated by Mr. WATTS, and we solicit cultivators to give the matter attention, and favor us with any facts on this head they may deem worth communicating.

REMEDY FOR THE CURCULIO.

MR. EDITOR: — In the May number of the Farmer is a communication from me on the culture of the plum. Had it been published in the April number, as intended, your correspondent, WM. WYLDE, of Erie co., Ohio, would have had better success in extirpating the curculio from his trees. I am rather surprised at the emphatic manner in which you state your want of faith in it as a remedy. Another year's experience has not diminished my faith in the least. To show you that it is no vain theory of my own, I send the enclosed scrap, which I cut from a stray paper that came into my hands, I think from Philadelphia, but am not positive. I think, if you will publish it, and will do so in the April number, it would prove beneficial to horticulturists, your faith to the contrary notwithstanding.

We are happy to be able to publish two direct experiments in support of the fact and discovery.

First, We bored and plugged with sulphur, in the usual way, a plum tree which commonly dropped, every year, all the plums before becoming ripe, the *curculios* lodging eggs in their germs. This was done when the tree was in blossom. On that year hardly any fruit fell, and the tree produced quite well.

Second, We find in the Genesee Farmer of January 28, 1832, that a young willow, nearly killed by aphis or lice, and ants feeding on their honey, was quite revived in three days, and all the lice and ants driven off, by boring the tree with an auger five feet from the ground and three-fourths through the diameter, filling with brimstone and plugging tight. The tree has thrived ever since.

The modus operandi of this singular process is very easy to explain. The vital energy of the tree and sap dissolves the sulphur, carries it into circulation, and evolves it in sulphuric gas, evaporating through all the pores of the branches, leaves and fruits. This gas is a deadly poison to insects and all animals, it suffocates them or drives them away as soon as they begin to smell it · but no injury whatever results to the tree.

We have never heard of any direct experiment on peach trees; but we are sure it will answer quite as well. If the sulphuric emanation could not reach quick enough the roots of the trees which are commonly attacked, the plugging must be done near the root, or at the time of the descending sap, when it will sooner reach the roots. Let it be tried and the results made known.

I will give you another fact, as to the efficacy of sulphur in the destruction of the locust borer. Six years ago this spring, I found that the beautiful locust trees which border my yard, were infested with the borer. I supposed they would soon be in the condition of some I had just seen in Onondaga county. I bored two or three holes, two thirds through the trees, and filled the holes with sulphur. The effect was perfectly satisfactory. The trees all lived and are now in a healthy condition. The succeeding summer I found large numbers in the bark, many of them dead. Whether sulphuric gas killed them, or whether they died a natural death, I do not pretend to decide. J. H. W. — *New-Haven, N. Y., March* 7, 1850. See Genesee Farmer, 1849, p. 209.

ANSWERS TO CORRESPONDENTS.

BARK LICE. — (L. H. ANDREWS, Plymouth, Ind.) Prof. HARRIS, in his "Treatise on Insects," says: "The best application for the destruction of these insects, is a wash made of two parts of soft soap and eight of water, with which is to be mixed lime enough to bring it to the consistence of thick white wash. This is to be put upon all parts of the tree, where the insects are, with a brush, so as to cover the whole surface and fill all the cracks in the bark. June, when the insects are young and tender, is the best time to do it." They are frequently got rid of by washing the trees with strong lye, and scrubbing with a hard brush, in the spring.

GRAFTING, AND THE PROPAGATION OF FRUIT TREES.—(E. S., jr., Fort Covington.) These subjects are fully treated upon in DOWNING'S, THOMAS', COLE'S, and other works on Fruit Trees; but if you will state any special points on which you wish more precise information, we will endeavor to explain.

RETARDING THE BLOSSOMING OF PEACH TREES, BY TREADING THE SNOW FIRMLY AROUND THEM.—(G. W. R., Webster.) Your communication on this subject was received too late for March, and is now out of season.

PREPARATION OF NEW LAND FOR FRUIT TREES.—(A. G. H., Waukesha, Wis.) It will answer very well to prepare large holes, say four feet in diameter, for the trees as soon as the timber is cut. The greatest objection is, that it renders the breaking up afterwards more difficult. In such soil as yours we would use the sub-soil plow by all means, if possible; though it is not absolutely necessary.

HARDIEST AND BEST PEACHES AND GRAPES.—(Charles Hanford, Alabama, Gen. Co., N. Y.) *Peaches* — Early Tillotson, Early York (serrate,) Early York large, Cole's Early Red, Cooledge's Favorite, Crawford's Early, Haines' Early, Barnard's or Yellow Alberge, Red Rare Ripe, Jacques' Rare Ripe, Snow Peach, Morris White, Lemon Cling, Large White Cling, and Oldmixen Free. *Grapes* — Isabella, Catawba, and Clinton.

APPLES.—(Gardner Goold, West Carlton, N. Y.) We think your apple is the *Vandevere* — a good variety.

THE WILHELMINA PEAR.—("A Subscriber," Le Roy.) We have not seen the fruit of this variety, but have imported it from France as a winter pear. It is possible you have the Bartlett, though our trees, from the same importation as yours, are quite different, as we know by the tree. Our specimen tree bore last season, but the fruit was picked before we saw it. Will you send us a piece of a last year's shoot, for examination?

MESSRS. EDITORS:—Will you do us the favor to inform us what we must do to our cedar trees to keep them in a green state. We have them planted in different kinds of soil, some on sandy soil with gravel and stone sub-soil; some in clay soil; and with being trimmed or sheared, many of them will turn brown and the lower limbs die. What substance is wanted to apply to the roots to keep them healthy? T. F.—*Fallston, Beaver Co., Pa.*

We wish you had stated what sort of cedar you cultivate. We presume, however, you mean the *arbor vitæ*, which is called "White Cedar," as the Red Cedar is seldom affected as you describe. Last fall we saw these trees quite brown in many places along the banks of the Hudson. They appeared to be almost in a dying state, and we were told that it was from the effects of a protracted drought. We have not seen them so affected here. Your trees may be suffering from an unsuitable soil. The natural situation of this tree is, we know, in wet swamps and on the steep rocky banks of streams and rivers. There are many swamps filled with them through the country, so wet that in the dryest weather in summer a man will sink to the knees, and again we find them flourishing on such rocky places as Queenston Heights, where there are only a few inches of earth. In dry open situations, the trees assume a more dense and pyramidal form; so as almost to appear a different species from the marsh trees. We would infer from these natural localities, that a light vegetable mold is their appropriate element, and hence it is very probable that your trees would be benefitted with a liberal dressing of leaf-mold from the woods, or swamp muck.

Ladies' Department.

A WORD FOR THE FLOWERS.

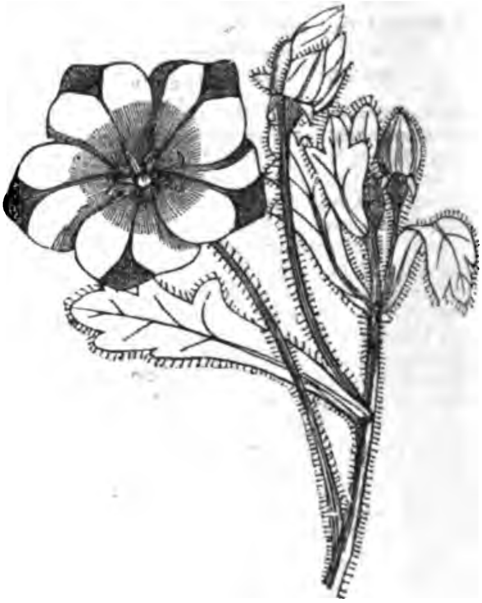
Messrs. Editors: — While perusing the columns of your valuable paper, dedicated to agriculture and science, my attention of course was particularly directed to "*A Gossip with the Ladies*," and as you promised to make a present of a Lady's Rake to any of your fair readers who would make a good use of it, I claim it, on the grounds that I am generally considered very fair, and likewise have a great taste for gardening. Yours, &c., H. A. C. — *Canandaigua, March*, 1850.

We have "one more left of the same sort," waiting a claimant; and as we wish them used, not only zealously, but intelligently, a few hints may not be inappropriate. We doubt not, during the last season, many of the readers of this article, as they observed the garden of their friends and neighbors, and were charmed with beauty and fragrance, such as a well-kept garden only can afford, regretted that they possessed not the knowledge necessary to make their own gardens bud and blossom, or that the knowledge they possessed had not been put in practice. But, alas! it was then too late! the spring had departed and with it the opportunity to sow and plant, summer had come, rewarding the industrious cultivators with the realization of their hopes, and telling as plainly as fruits and flowers can speak to the sensibilities of man, that intelligent industry meets its own reward.

Spring has again returned. April sun and showers will again warm into life and vigor the vegetable world. After the long repose of winter, each plant will appear to vie with its fellow, in the race of life and activity. We all start again on equal terms. Those who plant the best and cultivate the best shall reap the most abundant harvest. Now is the time to put into execution your good resolves, your well-formed plans. Delay a little longer — wait for a more convenient season — and the golden moment will be gone, and your regrets will be unavailing — the garden of your neighbor will cause your own and its owner a blush.

The ladies are the patrons of flowers the world over. As a general thing, perhaps, the men have not sufficient refinement to *love flowers*. Indeed, many *affect* a *manly* contempt of such trifles. Yet, we pity the man who has traveled far on the journey of life, without stopping for a moment to do them homage. They say they are of no *utility*. And is it for *utility*, Mr. *Utilitarian*, that you have built, and painted, and decorated, that fine house, in place of your former residence — as commodious, and equally convenient, though less pretending. Would your barbarous hands tear from the cottage the honeysuckles, the running roses, the Jessamines? Without these the cottage is a poor affair — old, rough, and unsightly. Covered with this drapery of nature, it is a gem of beauty which you might well envy and imitate. Is it of use, then, to spend your hundreds of dollars in beautifying your own residence, and of *no use* for the poor cottager, by the exercise of skill and taste, to made his residence a perfect picture of loveliness, showing the taste and refinement, while yours exhibits only the wealth of its possessor?

Those who undertake to cultivate flowers with little knowledge, are apt to be discouraged at the labor required. To persons who can only devote a spare hour to their flowers in the evening or morning, we would by all means recommend the Petunias and Verbenas. These are trailing or spreading plants, combining a great diversity of colors; and when a good selection of colors are planted together, they intermingle and form masses of great beauty, and no dry weather affects them — indeed, they love the warmest weather; and when other things are shrinking and withering, they are most flourishing. They may be grown in borders; but their appropriate place is in beds or figures of any shape, cut in the grass plot. To these we would add a few of the beautiful Dwarf Phloxes, Perpetual Roses, Scarlet Geraniums, and a few other choice things of this sort, and we have a flower garden gay with flowers from July to October, through all sorts of weather.



NEMOPHILA MACULATA.

The cultivation of annuals, to do it *well*, and no other way is satisfactory, requires a great deal of attention. Some want forwarding in a hot bed, transplanting, shading, watering, and watching in so many ways, that unless the greater portion of the time of one person can be devoted to them, the results will be noways satisfying. Still, there are a few really good and beautiful things that every body may have, because the seed may be sown in the border where they are intended to bloom, and require afterwards but to be kept clean of weeds, or thinned out; or, perhaps, a little tieing up, or pegging down, as the nature of the plant or the case otherwise may require. Of these, we will just mention, the *Mignonette*, that every one knows and loves for its sweetness; the *Phlox Drummondi*, a dwarf plant of all shades of pink and purple; *Sweet Alysum*, white and sweet, very dwarf; *Sweet Peas*, of various colors; *Portulacca*, scarlet, pink and yellow varieties, a spreading, succulent plant, that loves the hottest and dryest of summer weather; *Viola Tricolor* or *Pansy*.

Nemophila insignis, is a dwarf plant with charming blue flowers, and a new species, *Maculata*, of which we give an engraving, has beautiful spotted flowers, of a procumbent habit, and the whole plant is covered with short, spreading hairs. The flowers grow from the axils singly, on stalks longer than the leaves. Another word on this subject next month.

Youths' Department.

AGRICULTURE. — No. 3.

In our previous numbers we gave the Composition of Plants — the material of which they are formed. Now, the common sense of all will teach them that this material must be derived from some source. Plants obtain their food partly from the air and partly from the soil — they take it from the air by their leaves, and from the soil by their roots. These roots consist wholly, or in part, of small *fibrils*, or minute, slender branches, as seen in figure 4. The delicate extremeties of these *fibrils* are called *spongioles*; and they are the organs which, by the all-wise provision of the Creator, absorb from the soil just such food as is necessary for the sustenance of the plant. If this food is found in sufficient quantity, the plant *flourishes*, if not, it *starves*.

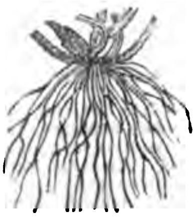


Fig. 4.

In the leaves are many small openings or mouths, by which they suck in from the atmosphere whatever is needed for their growth.

As plants are composed of two parts—the *organic*, or that part which burns away, and the *inorganic*, which is left after the plant is burned, — so they require two kinds of food — organic food for the organic part, and inorganic food for the inorganic part. The organic food is obtained partly from the air and partly from the soil; the inorganic food wholly from the soil. Plants obtain their food from the air mostly in the form of carbonic acid gas, which exists in the air only in small quantities. It is this gas which causes the boiling up of soda water. It is heavier than common air. You can make it and see its properties by pouring diluted muriatic acid upon pieces of limestone in a tall glass, as seen in fig. 5. It is so heavy that you can pour it from one glass to another. A lighted taper put into it will be extinguished.

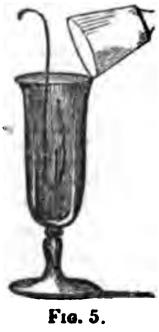


Fig. 5.

The air never lacks its part of of the nourishment of plants, and man can do nothing to improve it. But the soil is under man's control, and he can supply, when he knows the composition of his soil, and the composition of any plant, what may be lacking of material to make that plant; and he can grow certain plants on his land until they eat up all of their proper food, and then he can make them grow no more, until he furnishes to the soil the lacking substances. As all the inorganic part, and much of the organic part, of plants is obtained from the soil, it is of the highest importance to farmers to know the nature of their land.

The soil, like plants, is composed of an *organic* and an *inorganic* part — each part supplying its appropriate food to the plant. The *organic* part in good land is from one-tenth to one-twentieth of the whole. In peaty soils it is much greater. This is the reason that muck from a peaty bog makes a good manure for land lacking in organic matter. This part of the soil is derived from decayed roots, leaves, &c., the dung and bodies of animals, &c. As this organic matter is taken from the soil by the roots of plants, the land must of course become poorer and poorer, and less able to bear a crop, until at last it becomes what is called *worn out*. To prevent this, organic matter must be supplied in barn-yard manure, by which is returned to the field the hay, straw, &c., taken from it, and by plowing under clover and other green crops, &c.

The inorganic part of the soil consists of *sand, clay, lime, potash, soda, magnesia, oxide of iron, oxide of manganese, sulphuric acid, phosphoric acid,* and *chlorine*. Just the same substances that we told you in our last number were found in the ash of plants. These substances plants take from the soil with their roots, in a liquid state, being dissolved by rains, snows, and spring water, in the same way that you would dissolve salt in water. All productive soils contain these substances, though in different proportions.

A Family Scene. — The following little scene is by Mrs. Sigourney. It should teach our young readers the importance of being able to render themselves useful in a time of misfortune:

'I have lost my whole fortune,' said a merchant as he returned one evening to his home; 'we can no longer keep our carriage. We must leave this large house. The children can no longer go to expensive schools. Yesterday I was a rich man, to-day, there is nothing I can call my own.'

'Dear husband,' said the wife, 'we are still rich in each other and our children. Money may pass away, but God has given us a better treasure in those active hands and loving hearts.'

'Dear father,' said the children, 'do not look so sober. We will help you to get a living.'

'What can you do, poor things?' said he.

'You shall see! you shall see!' answered several voices. 'It is a pity, if we have been to school for nothing. How can the father of eight children be poor? We shall work and make you rich again!'

APRIL.

BY LONGFELLOW.

When the warm sun, that brings
Seed-time and harvest, has returned again,
'Tis sweet to visit the still wood, where springs
The first flower of the plain.

I love the season well,
When forest glades are teeming with bright forms,
Nor dark and many-folded clouds foretell
The coming in of storms.

From the earth's loosened mold
The sapling draws its sustenance, and thrives:
Though stricken to the heart with winter's cold,
The drooping tree revives.

The softly-warbled song
Comes through the pleasant woods, and colored wings
Are glancing in the golden sun, along
The forest openings.

And when bright sunset fills
The silver woods with light, the green slope throws
Its shadows in the hollows of the hills,
And wide the upland glows.

And when the day is gone,
In the blue lake, the sky, o'erreaching far,
Is hollowed out, and the moon dips her horn,
And twinkles many a star.

Inverted in the tide
Stand the gray rocks, and trembling shadows throw,
And the fair trees look over, side by side,
And see themselves below.

Sweet April, many a thought
Is wedded unto thee, as hearts are wed;
Nor shall they fail, till, to its autumn brought,
Life's golden fruit is shed.

Editor's Table.

Acknowledgements.—Our friends have placed us under so many obligations, in the way of books, pamphlets, reports, &c., that we fear their very kindness will cause on our part apparent neglect. It would be impossible for us publicly to acknowledge the receipt of the mass of communications, &c., with which we are favored. We are particularly indebted to B. P. Johnson, Esq., for Prof. Johnston's Lectures — some friend in Boston, for the Report of the Fowl Convention — Patent Office, Washington, for a valuable package of seeds — John W. Lincoln, Mass., for Transactions of Worcester Agricultural Society.

Hovey's Magazine of Horticulture and Rural Affairs.—This journal commences its sixteenth volume at the low price of $2 per annum, $3 being the former price, and the work is much better at this moment than it has ever been. For thirteen years we have looked to it monthly for useful and interesting information on gardening matters; it is only natural therefore that we rejoice in its success. We recommend it heartily to all who are seeking horticultural information, and its low price renders it accessible to all classes. D. M. Dewey is the agent in Rochester.

Durham Stock — Mr. Bates' Herd. — We reluctantly admitted the article of Mr. Stevens on this subject, as we think we can fill our columns with matter of more general interest than the discussion of these nice points. We think the experiments and experience of their brother farmers would be far more acceptable and profitable to our readers. Mr. S., however, considered his remarks misunderstood, and wished to make the correction; at the same time stating his intention, if he considered anything further should be necessary on the subject, to publish it in pamphlet form.

We are glad to see that the political editors throughout the country are introducing *Agricultural Departments* into their respective papers. In this way agricultural information is placed before thousands of farmers who will not take an agricultural paper. And we are not the less pleased that these papers copy column after column from the Farmer, although many do it without giving us a word of *credit*.

Agricultural Bookstore. — It will be seen by an advertisement in this number, that Mr. Chas. B. Norton has opened an Agricultural Bookstore in New York. Those wishing agricultural books can depend upon the honor and integrity of Mr. Norton.

Weather at the West.—Powell Howland, of Indianapolis, Ind., writes, Feb. 24th., as follows:—"Our winter has fairly vanished, and the weather has not been cold enough this winter to freeze the streams of two to six rods wide so as to bear a man, unless in some mill-pond. The ground is fairly settled. Wheat looks as fine as it can. On the 4th of February we had a sharp freeze that may hurt peaches." Henry G. Watkins, of Reed's Grove, Illinois, says: "We have had a very mild, open winter, with but little snow. Pigeons were seen on the first instant, and blue-birds to-day. The California fever is raging here to an alarming extent, and many of our citizens will be carried away by it."

In a Dilemma.—A correspondent says he is in a dilemma. He has bought a sub-soil plow, but is afraid to use it unless his land was drained, and he is too poor to drain, and asks our advice. Don't fear — use the plow. To satisfy yourself, sub-soil one half of a field and plow the other half in the ordinary way, treat it alike in every respect, and see its effect, and next year you will be *giving* instead of *asking* advice. As soon as you can raise the means, thoroughly drain a small piece, and see for yourself the effects of draining.

Monroe Co. Agricultural Society.—A meeting of the Executive Committee was held at our office, March 13th, when it was determined to make increased exertions to render the Society more efficient, and particularly to make the fair of the present year one worthy of the Society and the County. The Committee ask the co-operation of their brother farmers, and all friends of progress. The next meeting of the Society will be held in May.

The Prairie Farmer for February contains the following paragraph:

> The Genesee Farmer.—This paper has changed hands once more. Its old proprietor, Dr. Daniel Lee, having become tired of going to Athens in Georgia to make an Agricultural paper, has returned, and succeeds Mr. Moore as the publisher of the Farmer. We observe little in the paper that would mark the change, except that it talks rather more of making mud and turf into bones and tallow, and so on. We have no doubt that having got the hang of the thing, Dr. Lee will make the Farmer a first rate paper. The price of it is only 50 cents; but if the editor chooses to work for nothing, which he must do at that rate, it is none of our business. Mr. Barry still edits the Horticultural Department.

Our friend of the P. F. is in error in the above statements. "Dr. Daniel Lee," the "old proprietor" of the Genesee Farmer, never sold to Mr. Moore, nor to any other person, the interest which he has held in the paper since 1845, and purchased of Mr. Fogg. The remark, "This paper has changed hands *once more*," and what is said about the editor's "working for nothing," seem to imply that there is a screw loose somewhere out west.

Now, we plead guilty to the offence, if it be one, of being willing to perform a great deal of labor for a little pay, for the *hope* of doing some good through the medium of the cheapest agricultural journal in the world. There are some millions of farmers in the United States, who read no book nor periodical designed to illustrate the principles of tillage and farm economy. To reach these is an object of incalculable moment; and *experience* has demonstrated the fact, that a larger number will take a fifty cent than a dollar paper. Undoubtedly the editor and proprietor of this journal could make more money for himself by raising its price to that of the Prairie Farmer, than to keep it where it is; but so long as the friends of the Genesee Farmer will stand by it as they have done, it shall go for the *cause* and not for *money*. Reader! see that this, your old companion, has a circulation which will cover its current expenses, and it will neither be discontinued nor have its price raised. One who is willing to work twelve hours every day, in this country, is not likely to beg his bread.

It is extremely desirable to give the Farmer a circulation of 100,000 copies: not because it will benefit its proprietor, but for the good that will accrue to the great Agricultural Interest of the Union. Let it break the ice of prejudice against rural literature and rural science, and then the one, two, and three dollar journals will have easier sailing with the popular current created by our little pioneer craft that has gone ahead.

The Peach Crop.—We learn by the Ohio Cultivator, that the destruction of the peach buds by the winter is very extensive at the west. Here, everything in the fruit way looks well — not a bud or branch of anything we call *hardy* has been in the least effected.

Emery's Cylinder Dynomometer. — We have barely space to refer our readers to the advertisement of this useful instrument. An article with description, &c., prepared for this number, we are compelled to defer till our next.

To Competitors for our Premiums. — The competitors for our Premiums stood as follows, on our books, on the 18th of March — arranged according to the numbers sent, commencing with the highest:—

Joseph Watson, Clyde, N. Y.; E. C. Bliss, Westfield, N. Y.; E. Howland, Mechanicsville, N. Y.; J. H. Stanley, Le Roy, N. Y.; Orrin Bishop, Dundee, N. Y.; John Davis, Birmingham, Mich.; Moses Eames, Rutland, N. Y.; Wm. Knox, Waterloo, N. Y.; John L. Dolsen, Chatham, C. W.; Allen Hale, East Smithfield, Pa.; Isaac Minard, Hume, N. Y.; James Fraser, York, N. Y.; R. A. Woodcock, Oxford, C. W.: John Row, Riga, N. Y.; Silsby & Keeler, Seneca Falls; B. Coddington, Jr., Benton, N. Y.; Dr. Dow, Marion, N. Y.; O. C. Comstock, Marshall, Mich.; J. Wykoff, Romulus, N. Y.; A. Franklin, Honeoye, N. Y.; W. H. Pattison, Saline, Mich.; Apollos Kent, Amboy, Ohio; M. Beadle, Marengo, N. Y.; Lyman Strobridge, Trumansburgh, N. Y., L. L. Pratt, Fredonia, N. Y., C. Hubbard, Adams Center, N. Y.; R. Craig, Portersville, Pa.; T. S. Cowles, Springfield X Roads, Pa.; Jas. C. Robinson, Penn Yan, N. Y.; Jas. Macomber, Farmington, N. Y.; Peter Himrod, Lodi, N. Y.; J. H. Bailey, Perry, N. Y.;

☞ Competitors must bear in mind that additions to their lists must be mailed so as to reach us by the 15th of April, as at that time we shall make out our report for the May number.

Important to Farmers.

AGRICULTURAL BOOK STORE.

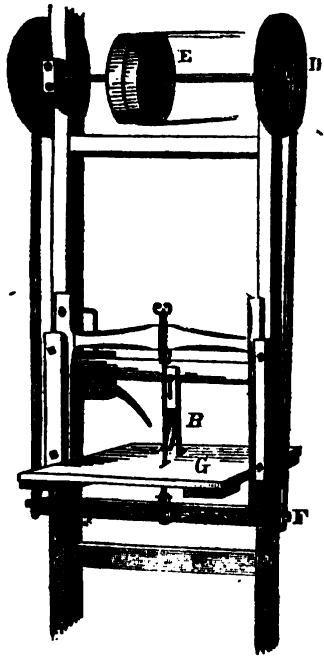
THE Subscriber has opened a Store at No. 71 Chambers st., "Irving House." New York, where he will be happy to attend to all orders for AGRICULTURAL or other Works, which will be sold at prices as low as can be furnished by any other house in the city.

☞ Books sent by mail or Fxpress, carefully packed, to any part of the Union. Address CHARLES B. NORTON,
Agricultural Book Store, New York.

Upright Saw Mill,

FOR SAWING CURVED WORK IN WAGON MAKING, CABINET, WORK, &c.

THE annexed cut represents the most simple and effectual arrangement for a saw mill for the purposes designed.



As these are made, they are equally well adapted for our one Horse Power, or may be used by steam or water power as desired. Its construction is a simple frame with two uprights from 8 to 12 feet feet long, with three cross beams 3½ feet long, of 3½ by 6½ inches square. Near the upper end is hung a straight shaft with fly wheels D on each end, outside the frame.

E, two driving pulleys, (one loose.)

C, wrist pins in fly wheels, to drive connecting rods.

F, connection of the driving rods and lower part of saw gate.

G, table.

B, dog for holding down plank, &c.

A, wind box and pipe for cleaning away saw-dust.

These mills can be afforded complete for $35, ready to be driven by horse, steam, or water power. They are warranted to be superior to any thing of the kind heretofore offered — and with one of the Railroad Horse Powers, is an important acquisition to mechanics having heavy or curved sawing to do.

Manufactured and for sale at the Agricultural Warehouse of
H. L. EMERY.
April 1, 1850. 369 & 371 Broadway, Albany, N. Y.

N. B. The whole can be taken to pieces and packed for shipment to any part of the country. Weight about 300 pounds.

Monroe Nursery.

THE Subscriber would remind his friends and the public that the season of transplanting trees is at hand, so that those, who intend to set out trees this spring, would do as well to make an early selection.

He is ready to make contracts wholesale or retail. His trees are of the most thrifty growth and well assorted, consisting of fruit and ornamental trees, together with a beautiful stock of green house plants, all at reduced prices.

☞ Applications, (post-paid) will be promptly attended to.
Greece March, 1850. [4-2t] CHARLES POWIS.

Alonzo Frost,

LAND AGENT, NURSEYMEN, JUSTICE OF THE PEACE,
HOUSE NO. 120 SOUTH SOPHIA ST., OFFICE IN CHILD'S BLOCK,
OPPOSITE THE ROCHESTER HOUSE.

A GOOD assortment of most articles in the Nursery line on hand, and arrangements made by which orders can be filled on as good terms as elsewhere. Those wishing to obtain fruit trees will consult their interest by calling and examining before purchasing from others. Also 50,000 Cherry seedlings, Black Mazzard.
April 1, 1850. [4-1t*]

Botanic Garden Nursery.

WATERLOO, SENECA COUNTY, N. Y., 4½ miles N. W. of Waterloo Village on the Vienna road. The subscriber offers for sale at wholsale or retail, a variety of FRUIT TREES selected by pesonal inspection from Bearing Trees, comprising Apples, Peaches, Cherries, &c. A choice selection of Evergreen and Deciduous Trees and Shrubs. Also, a superb assortment of Herbaceous Perennial Flowering Plants &c.

Native Trees, Shrubs and Plants Collected by the 100 or 1000 if ordered early.

Orders promptly executed and trees and plants packed for safe transportation to any part of the United States, Canada, or Europe.
[4-1t*] WM. S. DELL.

Highland Nurseries, Newburgh N. Y.

(LATE A. J. DOWNING & CO.)

THE PROPRIETORS beg leave to inform their patrons, and the public in general, that their stock of
FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, &c., for Spring planting, is unusually large and thrifty, and embraces all of the best varieties introduced into notice in this country or Europe; of Apple, Pear, Plum, Cherry, Peach, Nectarine, Apricot, Grape Vines, Gooseberry, Currants, Raspberry, Strawberry, &c.

Portugal Quince trees, standards extra size, each.....	$1 00
do do do quenouille, do do......	1 00
Angers, (true,) extra,..........................	1 00
Trees of the usual size,..........................	0 50

Also, *Pears* on Quince, and *Apple* on Paradise stocks, for dwarf trees.

The stock of Ornamental Trees, shrubs, &c., is very large; and quantities to dealers or planters, on a large scale, will be furnished at greatly reduced rates.

HEDGE PLANTS.

A large stock of Buckthorn and Osage Orange plants.

Also, a large stock of Rhubarb and Asparagus roots.

The entire stock has been propagated under the personal supervision of A. SAUL, whose long connection with this establishment is some guarantee, from the reputation it has gained, (and the present proprietors are determined to merit,) as to the *genuineness* and accuracy of the present stock.

Orders respectfully solicited, and will receive prompt attention, which will be carefully packed and shipped to any part of the Union or Europe.

Catalogues furnished *gratis* to *post-paid* applicants.
[4-] A. SAUL & CO.

To Fruit Growers and Nurserymen.

SPRING OF 1850.

THE SUBSCRIBERS invite the attention of tree purchasers to their stock now offered for sale. By large importr ions from Europe, and an extensive scale of propagation in their own grounds, they are enabled to offer one of the most extensive and complete assortments, and on the most liberal conditions.

The well known health, hardiness, and vigor of the trees grown here, and the undivided and scrupulous attention given to every department by the proprietors in person, offer great inducements to purchasers.

Standard Fruit Trees.
Pyramidal and Dwarf Fruit Trees.
Gooseberries, Currants, Strawberries, &c.
Ornamental Trees and Shrubs.
Roses, Dahlias, &c.
Hedge Plants, (including large quantities of Buckthorn and Osage Orange.)
Stocks for Standard and Dwarf Trees.

And all other Nursery Articles, besides a large collection of Greenhouse, Border and Bedding Plants. Wholesale priced lists sent gratis to all post-paid applications. A separate Catalogue for 1850, of Roses, Dahlias, and other new and rare articles will be also furnished.

ELLWANGER & BARRY.
Mount Hope Garden & Nurseries, Rochester, N. Y.
February 1st, 1850.

Rare Evergreen Trees.

WE have on hand a fine stock of
Deodar, or *Indian Cedar;*
Auracaria, or *Chili Pine;*
Cedar of Lebanon;
Abies Morinda, or *Himalayan Spruce;*
Pinus excelsa, or *Lofty Pine;*
Pinus Cembra, or *Cembran Pine;*
Cryptomeria Japonica;
Taxodium Sempervirens;
and many other species, all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March, 1850.

Engraving.

E. BALDWIN, would respectfully inform his friends and the public generally that he has located himself in Rochester, and is prepared to execute all descriptions of Engraving, Seals, Labills Machinery, Visiting and Wedding Cards, Letters, Book and Cloth stamps, Views of Buildings or Animals, in short every thing in his line will be done neatly and reasonably. He will also keep on hand an assortment of

JUVENILE BOOKS,

such as Young Toy Books, Dream Books, Primmers, &c., illustrated with fine wood cuts, plain and colored. Letter and fancy envelops, motto wafers, Prints, Lead pencils, &c., &c., which he will sell for cash at New-York prices. *All* those wishing anything in his line will please call at No 15 third floor Reynolds Arcade, Rochester N. Y.

Back Volumes of the Farmer we can furnish bound. Also, all works on Agriculture and Horticulture, Poultry, Sheep, &c.

HOVEY'S MAGAZINE OF HORTICULTURE, BOTANY AND RURAL AFFAIRS.

VOLUME XVI, FOR 1850.

Price Reduced to Two Dollars a Year.

Publishing in monthly numbers—making an annual volume of 600 pages.

☞ COMPLETE SET IN FIFTEEN VOLUMES, BOUND IN CLOTH, TWO DOLLARS EACH.

THE sixteenth volume of the Magazine commenced on the first of January, 1850. and with a view to give it a more extensive circulation, the price has been reduced to TWO DOLLARS A YEAR, making it the *cheapest*, as it is the *oldest*, and acknowledged to be the *best* periodical in Horticulture ever published. The FIFTEEN VOLUMES already completed, contain a greater amount of Horticultural information, than is to be found in any other work extant. More than 300 varieties of Pears have been figured and described in the several volumes. and every fruit, flower. and vegetable introduced into the country up to the present time have been noticed or described in its pages. Its list of contributors embraces all the most eminent amateurs and practical cultivators in the country.

The Magazine contains;

ORIGINAL CORRESPONDENCE, upon every department of Horticulture.

POMOLOGICAL NOTICES, with descriptions of all new fruit worthy of cultivation.

FLORICULTURAL NOTICES, of every new, rare, or beautiful flower.

NOTES on GARDENS and NURSERIES

POMOLOGICAL GOSSIP, a monthly digest of Pomological information.

REVIEWS of all works on Horticulture, Botany. &c.

GENERAL, FOREIGN and DOMESTIC NOTICES.

REPLIES to CORRESPONDENTS, on subjects connected with Horticulture.

HORTICULTURAL OPERATIONS for every month of the year.

ENGRAVINGS of Fruits. Flowers, Plants, Garden Structure, &c.

The Magazine is published monthly—in octavo numbers, forty-eight pages each: printed on a beautiful type. and on the finest paper, and furnished at the low price of $2 a year in advance.

☞ Post-Masters. Agents and others, who are interested in Horticultural Improvements, are respectfully solicited to obtain subscribers. Address the Publishers,

HOVEY, & CO.

April 1, 1850. 7 Merchants' Row. Boston

The American Fowl Breeder.

A NEW AND VALUABLE BOOK; Containing full information on Breeding, Rearing, Diseases, and Management of

DOMESTIC POULTRY;

By an Association of Practical Breeders.

The above valuable book is just published by JOHN P. JEWETT & CO., Cornhill, Boston; and it is offered at the extremely low price of

25 CENTS PER COPY,

to bring it within the means of every man interested in Poultry.

☞ WE WANT 100 GOOD FAITHFUL AGENTS, to sell this Work in every County in New England, New York, Pennsylvania, and the West; in connection with

COLE'S AMERICAN FRUIT BOOK,

AND

COLE'S AMERICAN VETERINARIAN.

Active and intelligent men can make money at the business.—Address, *post paid*, the Publishers, JOHN P. JEWETT & CO.,

CORNHILL, BOSTON.

P. S.—*The American Fowl Breeder* is done up in thin covers, and can be sent to any part of the country by mail. Any person sending a quarter of a dollar by mail. *post paid*, shall receive a copy of the work. [3-2t]

A Rare Chance.—Important to Wool Growers.

THE Subscriber having recently purchased of Merril Bingham, of Vermont. at a great price FIVE BUCK LAMBS, from pure blooded Spanish Merino Ewes sired by the celebrated French Merino Buck. imported at a great expense by Mr. Bingham and J. A. Tainter, of Connecticut, in 1847, offers the same for sale to farmers in this secton, desirous of improving their stock of sheep. The chance is a rare one, as the pedigree of these sheep have been substantiated beyond a question, and the evidence is *in hand*

The sub-criber also purchased 80 pure blooded Spanish Merino Ewes, all in Lamb, by the old imported Buck above mentioned and now owned by Mr. Bingham, and a full blooded French Merino Ewe and Buck at $200, which will be held for service another fall, This class of imported sheep shear from 18 to 23 lbs. of pure washed wool to the head. The size of carcass exceeds any thing now known in America.

He is fully confident that the superior advantages and the opportunity for great improvement thus offered to the Wool Growers of this county and section of country, will be duly appreciated All who wish to purchase or examin the FOREIGN BLOOD, can do so at any time by calling at his residence three miles north of Albion, and one mile north of Fair Haven.

JOHN J. McALLISTER.

Gaines, March 15, 1850. [4-3t]

FOR the cure of Coughs, Colds, Hoarseness, Bronchitis, Croup, Asthma, Whooping-Cough and Consumption. In offering to the community this justly celebrated remedy. it is not our wish to trifle with the afflicted—but frankly and faithfully to lay before them some of the evidences of its cures, from which they can judge for themselves. The following testimony is not from men of whom you have never heard. but men known to the world, and the world respect their opinions:

PROF. WEBSTER, of Harvard College, says, in a report to the Massachusetts Charitable Mechanincs' Association: "The evidences of its success as a remedy. sufficiently show that it may be relied upon with confidence for the relief of the numerous and afflicting pulmonary diseases incident to our climate."

From BENJ. SILLIMAN, M. D., LL. D., etc., Professor of Chemistry, Mineralogy. &c., Yale College. Member of the Lit. Hist. Med. Phil. and Scien. Societies of America and Europe: "I deem the CHERRY PECTORAL an admirable composition from some of the best raticles in the Materia Medica, and a very effective remedy for the class of diseases it is intended to cure."

Tee New Orleans Medical and Surgical Journal says: "No medicine or combination of medicine has been found to afford such results. and with such uniform certainty, in milder symptoms, or more formidable and dangerous affections of the lungs."

HEAR THE PATIENT.

U. S. HOTEL, SARATOGA SPRINGS, July 5. 1849.

Dr. J. C. AYER—Sir;—I have been afflicted with a painful affection of lungs, and all the symptoms of settled consumption, for more than a year. I could find no medicine that would reach my case, until I commenced the use of your CHERRY PECTORAL, which gave me gradual relief, and I have been steadily gaining my strength till my health is well nigh restored.

While using your medicine. I had the gratification of curing with it my reverend friend, Mr. Truman. of Sumpter District, who had been suspended from his parochial duties by a severe attack of bronchitis.

I have pleasure in certifying these facts to you.

And am, sir, very respectfully,

J. F. CALHOUN, of South Carolina.

Prepared by J. C. AYER, Chemist, Lowell, Mass, and sold by the Druggists everywhere. [4-1]

Doct. A. A. Morgan, Dentist,

WOULD respectfully announce to his friends and former patrons, and to the citizens of the surrounding country. that he can be found at the old stand of Beers & Morgan. corner North St. Paul and Main streets, ever ready to attend to their calls in that style so universally admired. He would also solicit the continuance of that patronage so liberally bestowed in years past. He will, on the shortest notice, furnish plates from one to an entire sett, on fine gold. and fill decayed natural teeth so as to preserve them during life. To the Profession. he would beg leave to state that he has constantly on hand an article of gold and tin foil. beaten expressly for him by a Philadelphia House, which cannot be surpassed. It is put up in $4 books, so that it can be safely mailed to any part of the State or Union; also, a good assortment of teeth, which he is selling at New York prices. ANSEL A. MORGAN.

Rochester. February, 1850. [3-tf.]

Ellwanger & Barry

WISH to say that the only traveling agents authorized to do business in their name, are ROBERT BLAIR, HIRAM [illegible]ECKER, and HENRY COLLINS.

They feel compelled to make this announcement in consequence of other persons representing themselves as their agents.

Mount Hope Garden and Nurseries.
Rochester N. Y., March. 1850.

C. J. Hayden's

CABINET AND CHAIR WAREHOUSE.

CONSTANTLY on hand every variety of CABINET FURNITURE, every style of Beadsteads and Chairs. which he is now offering at GREATER BARGAINS than can be had elsewhere in Western New York.

No. 6, Front street. Rochester, N. Y.

☞ All work warranted good, or no sale. [4-3t]

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y. warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it. promptly attended to. [4-4t] E. J. BURRALL.

SEYMOUR & MORGAN'S

IMPROVED REAPING MACHINE,

MANUFACTURED AT BROCKPORT, MONROE CO., N. Y.

THE subscribers are preparing to offer to the Farmers a superior REAPING MACHINE. Having for years been engaged in manufacturing a large number of *McCormick's Reapers*, they are confident that the Reaper which they are now manufacturing is far superior in every respect to any other now in use. It was thoroughly tested in the harvest fields last year and gave entire satisfaction to all who witnessed its operation. It surpasses any machine now before the public in many important points;—the *Cutter* or Sickle being in sections, in case of accident can be repaired by a good Blacksmith, without the owner being obliged to go to the manufacturers for a new blade. The ground wheel is 8 ft. in diameter, and all the geering runs in iron boxes. An early order is important from those wishing to purchase a machine, as we have already contracted for the sale of 300 for the West. In all cases a liberal warrant is given to the purchaser.

The improved Reaper was constructed under the supervision of our Foreman Mr. Geo. F Burnet, who has been engaged three years for us in the business. SEYMOUR & MORGAN.

Brockport, December 26, 1849.

CERTIFICATES.

Sweden, Nov. 12, 1849

Messrs Seymour, Morgan & Co.—In my harvest, last season, I used one of your Improved Grain Reapers. I had formerly used one of McCormick's improved Virginia Reapers, I have had considerable knowledge of them. In comparison, I think yours decidedly preferable; firstly—in point of perfection in cutting, which is the great desideratum, it is far in advance of his, and next, in case of operation, I think it has decided advantage. I did not obtain your Reaper until a large part of my harvest was completed; consequently I had not an opportunity to test the amount that could be cut in a day, still I am satisfied that it is capable of cutting from fifteen to twenty-five acres per day, and that, too, in the most perfect manner. I used no change of team. I did not find it necessary in doing an ordinary day's work—about fifteen acres per day. I tested your machine in wet grain and when there was grass at the bottom; here I found it had a great advantage over other Reapers in use, it being able to go through almost any grain, some badly lodged, without any apparent difficulty of clogging the knife. And from my experience I think it a valuable labor-saving-machine, and would cheerfully recommend it to the attention of farmers, as I think grain can be cut with it, all expenses counted, at half the cost of cutting it the ordinary way.—Wheat can be bound and shocked in a better manner, and with less labor, besides a great saving in the waste of grain.

Yours &c. F. P. Root.

I saw the aforesaid, Seymour & Morgan's Improved Reaper, in F. P. Root's harvest field and do concur in the foregoing statement.

Wm. Root, Esq.
D. H. Root.

I have seen the Machine work in very heavy, and also in wet wheat where it performed well, and believe it to be an improvement upon McCormick's Reaper. There was no clogging, as in the case of McCormick's and it must be a good machine if well made.

Nathan Locke.

Brockport, Nov. 13, 1849.

Messrs. Seymour & Morgan:—Gents—I used one of our Improved Reapers in my harvest, which worked better than any I have seen before used—cutting wheat when there is much grass, without choking, which other machines that I have used would not do—I have had much experience with Reapers—having purchased the first one of McCormick's brought to this State. I have since put a large number of McCormick's in operation at the West, and believe yours to be the most perfect Reaper now in use.

A. Chappell

I used one of Messrs. Seymour & Morgan's Reapers last harvest, and cheerfully recommend it to Farmers as the best machine within my knowledge for cutting grain. Geo. H. Allen.

Brockport, Nov. 13, 1849.

This may certify that I used in my harvest of 1849, Seymour & Morgan's Improved Reaper, which worked to my entire satisfaction; cutting grain in all conditions. I believe it cannot be clogged in either grassy or green wheat. I have witnessed the operation of other Reapers now in common use and I believe it to be superior to any that I have seen—cutting wet or grassy wheat where other Reapers cannot. F. W. Brewster.

Brockport, Nov. 12, 1849.

We have seen the trial of Seymour & Morgan's Improved Reaper in the harvest of F. W. Brewster—and having witnessed the operaton of other Reapers, we believe this the most perfect machine now in use

J. A. Holmes, Allec Potter,
D. A. White, W. Theo. Downs,
Morgan Randle, O. A. Royce,

A Rare Chance.

THE subscriber offers at private sale, or in exchange for serviceable horses or mares, to dispose of his splendid bay colt of the Surprise stock. His connection and interest in the Norman horse make it desirable to be free from this charge. This stallion is nearly five years old, has very superior colts, and from his size, appearance, and muscular development, promises much. Communications may be directed to Robt. B. Howland, Union Springs, Cayuga Co, N. Y. [3-2t]

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J THOMAS.

CONTAINING directions for the propagation and culture of Fruit Trees, in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties, cultivated in the United States. By J. J. Thomas. One volume 12 mo. of over 400 pages. With 300 accurate Illustrations.—Price $ 1,00

NOTICES OF THE PRESS.

"Among all the writers on fruits, we do not know of one who is Mr. Thomas's superior, if his equal, in condensing important matter. He gets right at the pith of the thing—he gives you that which you wish to know at once; stripped of all useless talk and twattle. No man has a keener eye for the best ways of doing things. Hence we always look into his writings with the assurance that we shall find something new, or some improvement on the old; and we are seldom disappointed.

This book is no exception. It is *full*. There is no vacant space in it. It is like a fresh egg—all good, and packed to the shell-full."—*Prarie Farmer*.

"We predict for it a very rapid sale. It should be in the hands of every fruit grower, and especially every nurseryman. It is a very cheap book for its price."—*Ohio Cultivator*.

"An equally valuable, but cheaper book than Downing's, was wanted by the great mass. Just such a work has Mr. Thomas given us. We consider it an invaluable addition to our agricultural libraries."—*Wool Grower*.

"It is a most valuable work to all engaged in the culture of Fruit Trees."—*Utica Herald*

"In the volume before us, we have the results of the author's experience and observation continued with untiring perseverance for many years, in language at once concise and perspicuous."—*Albaany Cultivtor*

"The vast number of varieties which have been propagated, renders such a book peculiarly necessary at the present time, serving to point out the good from the bad, and being just what the great mass of the community now want in reducing the list of sorts by retaining the best."—*Ib.*

"We can safely say, with confidence, to our readers, if you need a book to instruct you in the modes of growing trees, &c., from the first start, the system of pruning, &c., &c., you will find the American Fruit Culturist an extremely valuable work. * * The million who purchase it, will find matter adapted to their wants, superior to any work as yet published."—*Cleveland Herald*.

February 1. 1850. [2-3t.]

FRESH GARDEN SEEDS, IMPLEMENTS, &c.

RAPALJE & BRIGGS respectfully invite the attention of dealers in Garden Seeds to the stock they are now receiving at their Agricultural Warehouse and Seed Store, consisting in part of the following sorts:—

Beets, sorts; Broccolis; Cauliflowers; Cabbages, sorts; Carrots, sorts; Celery; Cress; Cucumbers, sorts; Lettuces, sorts; Melons, sorts; Onions, sorts; Peppers; Pumpkins; Radishes sorts; Spinages; Tomatoes; Turnips; Early and Late Peas; Dwarf and Pole Beans; Early and Sweet Boiling Corn, Flower Seeds, &c.

The above seeds being raised expressly for us during the last season, by faithful and experienced Seed Growers, we have perfect confidence in offering them to the public.

Seed Grain.—One of the most important cares of the farmer, is the judicious selection of his Seed Grain; and in order that that care may be lightened, and that we may be able to furnish Seed of the best quality, and well adapted to this climate, we have had selected for us, of the following sorts, such Seed as we feel confident will give perfect satisfaction to all:—Black Sea Spring Wheat, Italian do. do., Siberian do. do., Spring Rye, Barley, Bedford Oats, Buckwheat, and many choice varieties of Corn. Also, an extensive assortment of Garden and Grass Seeds.

Our stock of Seeds is now the most complete and extensive in the country, having received from London, the past winter, immense quantities of *Turnep, Cabbage Seed, &c*.

We have also, at our Warehouse, the largest and best assortment of Agricultural Implements in the State, consisting of Thrashing Machines, Reapers, Corn Shellers, Straw and Stalk Cutters, Horse Powers, Water Rams, Plows, Hoes, Spades, Forks, Pruning Saws and Knives, Churns, Harrows, Rakes Drilling Machines, in short, every article used by the Farmer, the Gardener, or the Horticulturist, from an Apple-Pearer to a Saw-Mill.

We ask every Farmer who needs *Seed* or *Tools*, to give us a call, at our Warehouse in Rochester, nearly opposite the Eagle Hotel, on Buffalo street, where we think we can satisfy all that our stock and prices are right. RAPALJE & BRIGGS.

Take Notice.

THREE Months Extra Pay and One Hundred and Sixty Acres of Land will be procured for all who enlisted for five years, or during the War of 1812, and for, all including Volunteers who served in Mexico, and for the heirs of all who have died in the service.

Information will be given to relatives, Free of Charge, by writing to

G. F. LEWIS,
Detroit, Michigan
Postage Paid.

Those who do not know what became of their friends, write when and where they joined the army. [2-3t]

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Emery's Albany Seed Planter, for Hand or Horse Power.

THIS is acknowledged to be the best Seed and Corn Planter in use. This is the fourth season they have been made, and upwards of two hundred and fifty have been ordered already for the coming spring use. As they are all warranted, and having been thoroughly tested and pretty generally introduced, the farmer desiring to plant the amount of half an acre of root crops or fifteen acres of corn, can well afford to purchase, and risk nothing in trying one. Price $14. For description, &c., see catalogue of Albany Agricultural Warehouse and Seedstore, No. 369, and 371 Broadway, Albany. H. L. EMERY.

The Morgan Horse Major Gifford

WILL stand the ensuing season, on Mondays, Tuesdays, and Wednesdays, at the stable of E. W. Sheldon, Sennett; on Thursdays and Fridays at the stable of S. B. Rowe, Camillus; and on Saturdays at the stable of John C. Munro, Bellisle.

Major Gifford is seven years old this spring; his color is a beautiful chestnut. He was sired by the Gifford Morgan, his dam a pure Morgan. Breeders of good horses are invited to call and see him.

TERMS—Ten dollars to insure. Pasturage furnished. Accidents and escapes at the risk of the owners.

April 1, 1850. [4-3t*] MASON & CO.

Young Morgan Tiger and Samson Chief

WILL be kept the ensuing season as follows:—On Mondays, Tuesdays, Wednesdays, and Thursdays, at the stable of the subscriber, two miles southeast of Clyde; on Fridays and Saturdays, at the stable of J. Landon, in Lyons.

PEDIGREE—Young Morgan Tiger was sired by the celebrated horse Morgan Tiger, formerly owned by Dr. Wm. May of Palmyra. Samson Chief was sired by the imported Samson, imported by John Robinson of Palmyra.

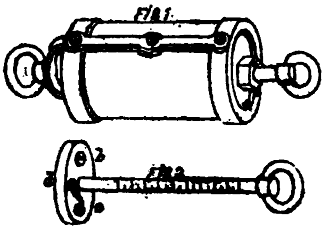
TERMS—Eight dollars to insure a foal. All persons parting with their mares before foaling time will be held responsible for the insurance money. Good pasture will be furnished for mares from a distance at two shillings and six pence per week. All escapes and accidents at the risk of the owner.

Breeders of good horses are invited to call and see them and their stock. ☞ Young Morgan is a bright bay, coming five years old, sixteen hands high, and well proportioned. He was awarded the first premium at the Wayne County Fair held at Rose Valley in October, 1849. Samson was awarded the first premium as being the best three years old stallion exhibited, at the same place and time. ISAAC M. GILLETT.

April 1, 1850. [4-3t*]

Emery's Cylinder Dynamometer.

THE subscriber having long been interested in the manufacturing and vending of plows, and having attended annually several plowing matches, as well as trials of plows, both in Massachusetts and N. York, for the last nine years, he has as often seen the difficulties in deciding and determining the relative merits of the competitor's plows, and he has as often declined entering in a test trial of plows. And too often the one item of EASE OF DRAFT has been considered the greatest excellence in a plow, and that usually determined by a spring instrument, with a vibrating index ranging from 1 pound to 1000 pounds, and affected by every variation in speed of team and obstructions met in its progress. He has long endeavored to construct an instrument for this purpose, and at considerable expense and time has succeeded in producing one, which if not perfect, is as nearly so as can be desired by the most particular. In the above cut, figure 1 represents the instrument complete. Figure 2 represents the piston detached, showing the popet valve, orifice for the fluid, and graduations on the piston rod.



Agricultural societies and manufacturers of plows, and others, wishing one of these instruments, can obtain them by addressing
H. L. EMERY, Albany Agricultural Warehouse,
Nos. 369 and 371 Broadway, Albany, N. Y.

Patent Endless Railroad Horse Power and over Shot Threshing Machine and Seperator.

NO THRESHING MACHINE ever invented has met with so rapid an introduction or given so general satisfaction as this. Four years since less than a dozen setts were sold in this State, where last season upwards of three hundred were made and sold, beside many in the Western States, without supplying the demand.

With increased facilities for manufacturing, and progress already made on them, we will be enabled to turn out in season for the coming harvest five hundred setts. Those farmers desiring to avoid the trouble, expense, and inconvenience attending the employment of the ordinary large lever powers and threshers, by purchasing and using one of their own machines, and with the help usually about their farms, are requested to examine this machine, terms of sale, warranty, &c., &c., before purchasing elsewhere. For further particulars, see Catalogue of Albany Agricultural Warehouse and Seedstore, gratis on application, Nos. 369 and 371, Broadway, Albany, N. Y., or the agricultural papers and reports of Agricultural Societies, for three years past. Address
HORACE L. EMERY, Albany, N. Y.

Farmers Please Take Notice.

I AM now Manufacturing a *New Seed Drill*, Patented Nov. 6, 1849 at Tasten, Gesup & Co.'s Machine Shop, Palmyra, Wayne Co. N. Y., and shall be prepared to supply all orders.

My new improved Drill will cost from $50 to $85 at the factory. My fifty dollar Drill will be simple and durable, with seven tubes and warrented. Agents are wanted to sell Drills and territory. A more full Notice and Discription with cut will soon be Published. I ask Farmers to see my Drill before they purchase.

☞ All communications (post-paid) will receive prompt attention. Direct to me at Ontario, Wayne Co. N. Y.

[4-3t] J. W. SHERMAN.

First in Beauty and Value—Cheapest and Most Popular.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

FIVE Copies for $2; Eight Copies for $3, and any large number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to
DANIEL LEE.
December, 1849. *Rochester, New York*

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. • . ROCHESTER, N. Y.—MAY, 1850. NO. 5.

"ON THE COST OF PRODUCING CORN."

The above is the heading of an interesting paper in the March number of the Farmers' Magazine, (London,) which discusses a subject of universal moment to all cultivators of the soil. By the term "corn," the American reader is to understand "wheat," although barley, rye, and oats are sometimes included, as well as maize and rice — the word "corn" being used in a generic sense. The cost of producing wheat is the subject which we propose to consider at this time.

In looking over the back volumes of the New York State Agricultural Society, and of several of the leading agricultural journals of the country, we are unable to find any estimate of the value of the raw material in the soil, which is consumed or wasted in producing twenty bushels of wheat on an acre. This is a remarkable omission, and one which it is difficult to account for in any satisfactory manner. There are scores of estimates of the cost per bushel of growing wheat; but no one presumes to indicate the value of the fertilizing atoms extracted from the earth to form the crop; and nothing is allowed for replacing the phosphorus, sulphur, potash, magnesia, soluble flint, carbon, and ammonia, removed from the field in the seeds which are sent to a distant market. Is the supply of phosphorus in the soil unlimited? If so, why does it sell in all cities at from two to three dollars a pound? It is only obtained in any quantities from the *bones* of domestic animals; and they of course derive it from their daily food and the soil. Although carbonate of lime is an abundant mineral, such is not the fact with *apatite*, or phosphate of lime. It is true that phosphoric acid is combined with other bases than lime, in both surface and sub-soils, and especially with alumina and iron. We have long believed that one of the most important functions performed by lime, when applied to wheat bearing lands, is the decomposition of phosphates of alumina and iron by the *alkaline* base, which has a strong affinity for the acid named. By this union of phosphoric acid and lime, *bone earth* is formed, and rendered available to meet the wants of all cultivated plants. But after land has been limed and cultivated for many years, sad experience proves that the supply of phosphoric acid, potash, sulphur, magnesia, chlorine, and ammonia, fails. Hence, in producing wheat, the farmer consumes his capital without an equivalent, unless he provides for restoring to his fields all the elements of the crop, so far as nature does not furnish them in inexhaustible quantities.

The Rev. Mr. Hextable of England, lately published a pamphlet, in which he rashly assumed that ordinary wheat lands in that country will bear the loss of sixteen bushels of wheat a year per acre, without deterioration. This assertion is shown to be untrue, unless it be in peculiar localities. There are some marine deposits so rich in phosphates, sulphates, and chlorides of lime, potash, soda, and magnesia, as to bear severe cropping for ages, with little or no detriment. So, too, where the waters of rivers like the Nile can be made to irrigate large districts, they, as in portions of Egypt, may export the fruits of two thousand harvests, and still retain their virgin fertility. But these well marked exceptions only prove with increased certainty the soundness of the principle, that common soils can endure no such treatment. If they will not yield sixteen bushels of wheat a year, without impoverishment, what number can they produce? This is a question of the highest importance, not merely to farmers, but to every human being in America, who depends on the fruitfulness of its soil for the means of subsistence.

There is but a small part of the area of the United States that can spare twenty bushels of wheat per acre every third year, and keep good the supply of raw material for making this crop, by extracting the same from the sub-soil and the atmosphere. There is reason to believe that some choice wheat lands will do this for centuries, simply returning the straw, but none of the grain. But such soils must abound in lime, gypsum, and bone earth; in potash, common salt, and magnesia; and clover, peas, or some similar renovating crop, to form a mold rich in organic nitrogen, must also be grown in rotation with wheat.

Both the art and the science of wheat culture are in their infancy. Although all the experiments in growing wheat after wheat in England have failed, and mainly because land became exceedingly foul with weeds, yet we believe that means will be found to obviate this impediment; and the manufacture of wheat in the same workshop, year in and year out, will be found both practicable and profitable. Weeds do not grow without seeds, and the vitality of these may be destroyed.

Before wheat can be grown for many years in succession on the same land, the crop, including grain and straw, must be consumed so near, that all the essential elements of both may be economically restored to the earth whence they were taken. It is the universal neglect to obey this law of nature, which is a law of God, that impoverishes so many millions of acres of American soils. The twenty-two millions of people now in the United States annually consume, or otherwise waste, enough of the elements of bread and meat, wool and cotton, tobacco and sugar cane, to form 500,000,000 bushels of wheat. All these elements of fertility are extracted from the surface of the earth, and never restored. If we allow only the quantity given to southern slaves, thirteen bushels to each on a plantation, old and young, the aggregate consumed by 22,000,000 of persons is 286,000,000 bushels per annum. The quantity of fertilizing atoms, directly or indirectly wasted in provisions, vegetables, and fruits, is ten per cent. greater than in bread-stuffs. The ten or twelve millions of acres planted every year in cotton, tobacco, and sugar cane, lose each the equivalent of twenty bushels of wheat. After traveling carefully over the whole ground, estimating the number now employed in tillage and husbandry in the free and slave States, and the several crops exported as well as consumed at home, our annual consumption drawn from the soil and not restored, is found to be equal to one thousand million bushels of corn. The number of laborers constantly employed in deteriorating the natural fruitfulness of the earth in thirty States, increases at the rate of some 200,000 a year.

There are 100,000,000 acres of land in the planting and grain growing States, which includes the whole, whose natural fertility, or supply of bone earth, potash, gypsum, magnesia, and soluble flint, can not be made good for ten dollars an acre, or for one thousand millions of dollars.

Number of persons employed in 1840,

In agriculture,	3,719,951
In manufactures and trades,	791,749
In commerce,	117,609
In learned professions,	65,255
In navigating the ocean,	56,021
In navigating the rivers, lakes, and canals,	32,276
In pensions,	20,798
In mining,	15,210
Total,	1,098,918

By adding the natural increase to the tillers of the earth, the increase by emigrants from Europe and Canada, and the gain by the annexation of Texas, and it will be found that 5,000,000 laborers are now employed in agriculture in the United States, this side of New Mexico. Before we can possibly persuade one half to do as much to enrich the earth as the other moiety do to impoverish it, twenty-five years will elapse, when five millions of laborers will still be employed in exhausting American soils. "Uncle Sam" has a magnificent farm; but his children manage it very badly.

The raw material for making a bushel of wheat, is worth from ten to thirty cents, according to its abundance in the soil and the location of the land. In England, where the average crops of wheat are about twice as large as in this country, an acre consumes some 25 lbs. of phosphoric acid, 62½ lbs. ammonia, 30 lbs. pure potash, 117 lbs. soluble silica, 10½ lbs. sulphuric acid, beside other important elements. At the cheapest rate, the ammonia alone is set down at £1 11*s.* 3*d.*, or about $7.60. If we have a right to assume that a good living is worth as much in the United States as in England, and that no generation has more than a life lease in the earth which it cultivates, and is bound to leave the soil as fertile as it found it, then to waste the elements of bread and meat, wool and cotton, as we now do, is one of the gravest offences against the inalienable rights of posterity. We compel our children and grand-children to give far more labor for a bushel of wheat than we do, if we impoverish one acre of arable land which they must cultivate. The safest and best property which a man can leave for his children, is a farm rich in all the elements of wheat, giving them a thorough professional education how to render it forever exceedingly productive, and at a small expense. It requires less wit to rob the soil than to rob a bank or granary; and some day it will be thought equally dishonest.

DURABILITY OF BONE MANURE.

At the last meeting of the Probus (Eng.) Farmers' Club, a paper on the analysis of the soils of Carnwinick farm—the property and in the occupation of C. A. T. Hawkins, Esq., was read by Mr. Karkeek. Its object was to show the durability of bone manure for a period of ten years.

It appears that, in 1835, a piece of waste ground was taken from the common, and prepared for turneps, the larger part of which was manured with bone dust, at the rate of three quarters (twenty-four bushels) to the acre. (The whole of the turnep plants were destroyed by the fly; consequently, little or none of the bone dust was used in that crop.) In the two following years it was successively cropped with oats, and with the last crop, laid down to permanent pasture, in which state it has remained ever since. At the present period, the effect of the bone dust can be plainly distinguished—the land having a rich green sward, while the adjoining part, where no bone dust has been applied, has a coarse, sterile appearance. This, and a great many other experiments of the same character, made by the manager of the farm, in all of which the effect of the bone was equally visible, induced the Club to send a sample of the soil from each part of the field on which the first named experiment was made, to Mr. Hunt, now curator of the Museum of Economic Geology, to be analysed, in order to ascertain if the bone could be detected at the present time. It should be observed that Mr. Hunt was kept altogether ignorant of the object of the Club, and that the result was perfectly satisfactory, inasmuch as he readily detected the bone in that portion of the field on which it had been applied ten years before. The following are the analyses:

	No. 1.	No. 2.
Water, evaporated by stove drying,	14.06	14.18
Vegetable and animal matters burnt off,	12.61	12.05
Silica and silicious grit,	49.54	49.50
Oxide of iron,	7.03	7.00
Carbonate of lime,	1.05	1.06
Carbonate of magnesia,	0.25	0.36
Sulphate of lime,	1.05	1.04
Muriates,	0.54	0.64
Alumina,	7.10	6.04
Phosphate of lime,	0.10	0.75
Phosphate of magnesia,	0.00	0.05
Potash,	1.00	1.27
Humus and soluble alkalies,	6.00	6.17

Mr. Karkeek contended, from these analyses, that the experiment went to prove an important fact, which had been a disputed question among agriculturists, viz: that the principal manuring properties of bone existed in the *earthy* matters, which constitute about two-thirds of bone, and *not* in the oily and glutinous parts constituting the remaining third.

An interesting discussion ensued on the subject of the analyses, the Club being of opinion that the organic parts of bone evidently had a powerful effect as manure, but that it was next to an impossibility that any other than the earthy matter could have remained so long in the land—the whole of the animal matter having probably been consumed by the two crops of oats—and they agreed with Mr. Karkeek, that the principal manuring properties of bone exist in the earthy phosphates.—*London Agricultural Gazette.*

The above instructive article calls forcibly to mind an incident in our chemical experience in Georgia, something over a year ago. Two parcels of minerals, having precisely the same appearance, were sent for analyses, with the implied understanding that they were fertilizers like marl, from a common bed at different depths; when in truth, one was from the Cherokee country and the other from Nova Scotia. The analyses were entirely satisfactory, although we had not the remotest suspicion at the time, that the substances had been prepared to test the skill of the analyst. We have found soils so poor that 5,000 grains would give but one of sulphate of lime, or gypsum.

HINTS FOR MAY.

As the work of the farmer is about to begin in good earnest, it is well that he should look about him to see that he has all things in order. No sensible and prudent general would take his soldiers into action before he ascertained that his powder was dry. No captain would undertake to cross the Atlantic until he had first ascertained not only that his ship was in good condition, but well stored with provisions. No farmer should commence the contest for abundant crops, against foes large and small, animate and inanimate, sleepless and untiring, without having first surveyed the whole ground, marked out his mode of operation, examined every implement to see that it is in working order, and paid particular attention to the breastworks, (fences.)

In the first place, remember to feed your crops well, whatever they are, and never leave them to starve while you have enough food wasting in your barn-yard, to nourish and sustain them.

Look over the back numbers and volumes of the Farmer a little, of an evening or two; it will refresh your memory, and remind you of many things that at the time you had determined to do, but will have forgotten. If there is any point on which you have doubts, talk it over with your boys, or your neighbors. Try experiments carefully, but generally on a small scale. We have heard many farmers complain that their sons have no taste for farming — and who can wonder at it? If a farmer has a son more thoughtful than the rest, more inclined to *read* and *think*, that son leaves the farm and enters some city to study a profession, or to engage in commerce or the mechanic arts — and we say again, who can wonder at it, or who can blame him. He had been taught that a little manuring, plowing, sowing, and reaping, a few rules handed down from generation to generation, was the whole of a farmer's business — that it was a mere mechanical operation. He becomes disgusted with it, disdains to become a mere machine, and longs for a more intellectual business — a business that will afford food for thought — a field for the exercise of talents which he feels burning within him — an opportunity to gain distinction — to impress his character upon mind or matter. But give your sons agricultural papers and books — teach them that the farm calls for the exercise of the highest skill — that it is Nature's laboratory, and a knowledge of the natural sciences is necessary to the perfection of farming — that talents can be as successfully and as honorably employed in cultivating a farm, as in practicing law or medicine, and you will have no difficulty in getting your sons to *love* farming. They will engage in it with a *zeal* and a knowledge that will leave their fathers far behind them.

Attention should be given to *pruning fruit trees* and manuring; but as our Horticultural editor attends promptly to this department, our hints on the subject will be hardly necessary.

Corn should be planted as soon as there is no apprehension of frost, in hills three to five feet apart. Thick planting gives fewer ears upon a stalk, and those of less size.

Potatoes it is well to plant early. In fact, it is always better to be a little before the season in your work, than a little behind. All work with a better spirit when they know they are ahead — when they feel they are not *driven*, but *driving*. A stern chase is a hard one. It is easier to hold up a day or two if you get too far ahead, than it is to gain lost time.

In the *Kitchen Garden*, *peas*, if not already sown, should be immediately. *Onions*, if not sown last month, should be attended to. *Beets*, *radishes*, *lettuce*, *early corn*, and *beans*, should receive attention. *Strawberry-beds* should be put in complete order — the weeds all cleaned out, the earth lightened around the plants, or between the rows, and apply well rotted manure, if it was not done last fall — and in a month or so you will reap a *delicious* reward. Every farmer should have a small and *well-kept* kitchen garden. The man that has no fruit and vegetable garden, don't know much about *good living*.

THE PLOW.

THE pages of the Genesee Farmer bear witness to a zeal and desire to promote the improvement of every agricultural implement. Every volume exhibits an effort to diminish resistence and gain power. In the conflict of opinions, we necessarily find the admixture of undigested ideas with vigorous thought ending in disappointment — the darling fancy of a visionary unsupported by a single mechanicle principle; and not unfrequently the claim of perfection stoutly maintained by a half instructed artisan, for the machine of his own invention and construction.

In no agricultural implement has ignorance and fancy had greater sway, than in the form and construction of the PLOW. In no other farm implement has prejudice and presumption caused more vexation or loss to the farmer. And yet there is much cause to be satisfied with our present condition: not that the plow is perfect — no, for the best is yet an imperfect implement; but when we remember the rude, rough plow, of a few years ago, we should be thankful for the improvements now at our command.

The movement made by the farmers of one of our central counties, last summer, seemed to give an additional impetus to ingenuity, touching a new chord among scientific mechanics. The notice of the State Agricultural Society for a trial of plows in June next, at Albany, is another and more powerful sign of improvement in the use and manufacture of the plow; and the coming trial may be hailed as an era in the history of the plow.

While in this country great efforts are being made to improve our system of agriculture, we notice the urgent demands upon British ingenuity, to maintain their ascendency and power of producing greater crops than *we* have yet accomplished as an average product. The encouragement offered in Great Britain, by large premiums, has at last produced a STEAM PLOW — a working steam plow, of admirable construction, and said to be perfect in its work. It is the invention of Mr. USHER, of Edinburgh, and unites the processes of plowing and digging. It consists of a series of plows in the same plane around an axis, so arranged that the plows come successively into action. The power is applied to give a rotary motion to the series of plows, in such manner as that the resistance of the earth to the plows, as they enter and pass through the soil, causes the machine to be propelled. There is a difficulty in conveying an idea of this steam plow without a drawing. If, however, it continues to work satisfactorily, it will soon be among us. The plow, as now constructed, turns five furrows at the same time, and these may be increased or diminished at the pleasure of the farmer.

Here, then, is another stimulus for our ingenious mechanics; and no doubt need exist that if plowing can be done *economically* by steam power, it will be accomplished and perfected by some genius of American birth. OPUS.

S W.'S NOTES FOR THE MONTH.

TRADE WITH ENGLAND.—The British minister at Washington demurs to our raising the duty on English iron above the present 30 per cent. duty. In attempting to show that the British government does not reciprocate, by corresponding low duties on our products, the Boston Atlas adverts to the high duty levied on our tobacco, in the United Kingdom of Great Britain. Why can not the Atlas tell the whole truth, and say that cotton, our great agricultural staple of export, compared to which, our export of tobacco is but a drop in the bucket, is admitted free of duty, or nearly free, into England; and that since the modification of the British tariffs and corn laws, our flour, Indian corn, provisions, &c., &c., are admitted into Great Britain at very low duties. In Great Britain, the common articles of first necessity are spared, while luxuries, like brandy, wine, and tobacco, are heavily taxed.

THE WHEAT AND CORN CROPS.—All agree that wheat on the ground looks well this spring. In our severe climate, the liability of his wheat to winter-kill is always a source of apprehension to the farmer, until severe frosts are over. The rust is also a disease incidental to our extreme climate; but if any farmer wants to see how much good tillage will do toward putting the wheat crop ahead of all its enemies, let him go and look upon the wheat fields of JOHN JOHNSON of Fayette, near Seneca lake. I am told by a farmer who has traveled through Seneca, Ontario, and Wayne, since the first of the month, that he has seen no wheat field to compare with these under-drained fields of Mr. J.'s, in the forward and fresh appearance of the growing crop. If the wheat crop in Ohio should realize its present promise, this cereal must necessarily be cheaper the coming year. Russia has now exceeded all the rest of Europe in the production of wheat for export; the port of Odessa, on the Euxine, can send to England two and a half millions of bushels, if necessary, in any one year. Chili, a country whose mild climate is peculiarly favorable to the growth of the wheat plant, now finds in the market of California a great stimulus to increase the culture of wheat. Hence it would seem that the export of wheat and flour from the United States must necessarily decrease, while the the export of Indian corn to Great Britain must, in the absence of competition, continue to increase. It is said that Indian corn alone has kept starvation out of Ireland, and that in England it is now in great and increasing demand, to take the place of oats, barley, and oil cake, in fatting hogs and cattle. Indian corn must be acknowledged, sooner or later, as the great indigenous and most profitable cereal of the United States. In spite of all the efforts of the great west to grow winter wheat, or its modified, inferior substitute, spring wheat, nature still triumphs! and all porkopolis proclaims, that without Indian corn, the present wealth, ease, comfort, and statistical respectability of the great west, would be almost unknown.

FLAX SEED.—Ten years ago, the growing of flax for the seed was generally practiced by our farmers. The crop of flax, when removed, left the ground in good condition to be sown to wheat; but this double cropping has been abandoned of late, as being too exhausting a process of tillage; yet the practice of sowing wheat after corn is still continued by many of our best farmers, with great success. Now, as a corn crop takes more of the elements of nutrition from the soil than a crop of flax—as corn is a later crop, and requires much more labor to remove it from the field before the field can be plowed for wheat, it is evident at least that wheat may be more easily put in after flax than after corn; and if the soil was as well manured and put in as good condition for flax as for corn, the exhaustion of the soil must be less from the flax crop than from the corn crop. The probable continuance of the present very high price of flax seed, should encourage farmers to return to flax growing for the seed; the lint is already in request in its rough state, by the paper-makers; and the patent office report says that "progress is making in the preparation of flax, which promises great results." On analysis, it is found that the ashes of the flax plant contain nearly one-third potash and soda; hence, salt and house-ashes, sown broad-cast, are the best inorganic manure. Mr. BARTLETT of Romulus, once tried the experiment of sowing salt broad-cast over a part of his flax field; the result was a visible increase of seed in the plants on that part of the field. *Waterloo, N. Y., April*, 1850.

TO PRESERVE HAMS THROUGH THE SUMMER.

MESSRS. EDITORS:—As the time of year is at hand for good house-keepers to put away their hams for summer and fall use, and as I hear so much about hams not keeping through the summer, I have thought it best to send you my method of taking care of them; and those of your subscribers who will try it as it should be tried, may write me if it fail, and I will pay the postage.

Make a number of common cotton bags, a little larger than your hams; after the hams are well smoked, place them in the bags; then get the very best kind of sweet, well made hay, cut it with a cutting-box or knife, and with your hands press it well around the hams in the bags; tie your bags with good strings, put on a card the year, to show their age, and hang them up in your garret or some dry room; and my word for it, if you let them hang for five years, they will be better for boiling than on the day you put them up. I have kept them seven years, and have some now that are four years old. This method costs but little, as the bags will last for years. The only loss is the hay, and that the cattle will eat if given to them in the winter. No flies or bugs will trouble the hams if the hay is well pressed around them, the swetting of the hams will be taken up by the hay, and the hay will impart a fine flavor to the hams. W. T. CUYLER.—*Cuylerville, N. Y., March*, 1850.

Wheat Husbandry.

ON SMUT IN WHEAT, AND THE CAUSE OF IT.

We have received the following communication from one of the most experienced and observing of Seneca county farmers. The subject is one well worthy the consideration of thinking men:

Messrs. Editors: — In the last Farmer I notice an article from an old and excellent friend of mine, upon the subject of smut. We are at issue, and I conclude he re-publishes his articles from the Argus of many years ago — thoroughly satisfied of the accuracy of his views. Herein you have an article written by me, aiming to cure an evil which I had noticed among my neighbors, though for myself I have never seen *smut* on my farm, except occasional ears of corn or a few among my barley — never in my wheat. My excellent friend J. H. H. is a sound thinking man; and my first feeling when I differ from him, is that I am wrong. Yet, upon every examination of the subject — upon a close scrutiny of his articles — I see nothing to change my views, which seem to me more in accordance with sound philosophy than those of my friend. You will, I think, upon examining his articles, see, and perhaps very clearly, that the insects noticed by him were, as *he says, feeding on the smut.* This I believe was the fact — they were attracted to their natural food — they found good pasture grounds and pleasant habitations in kernels of wheat for the care of their young, &c. I could call your attention to other points of fact in the numbers, all strictly true as stated, but all susceptible of very different inferences from those of my friend; at least, so I think, and shall be right glad to be corrected if I am in error. If the question appears to you worth pursuing, it might be well to quote the article written for the Seneca County Observer, and published in that paper, which is enclosed herein; it will give to your readers the opposing views of two farmers, and may lead other farmers to closer observation. I have pursued Entomology for many years as a study, and feel a powerful interest in drawing forth facts from observing men.

Smut.—This is a disease too familiar to wheat growers generally, and is so extensive, to the discredit of farmers, that most millers have been compelled to erect smut machines, to cleanse the grain before grinding it; and even in England, where they boast so loudly of their agriculture, this disease is so extensive that many establishments have been erected for *washing* wheat, and for which process the millers pay about one shilling or 22 cents per quarter, causing a severe loss to the farmer, who is justly accountable for the deficiency in weight after washing.

There are *two kinds* of smut noticeable by the farmer. The one is common to wheat, barley, and oats, and when mature, it bursts the husk and appears among the chaff like soot. This kind of smut is not very injurious. It affects but few heads and never, as I believe, any crop extensively. It matures also before the grain is ripe, and is blown away, or washed off by the rains before it can reach the ripening harvest. The grain attacked by it perishes, but no evil is communicated to the adjoining plant.

The other kind of smut attacks *wheat only*, and when neglected it is destructive. We can readily detect it as soon as the ear breaks forth from the sheath; each grain is swollen, first appearing brown and then turning black. This smut will, also, when crushed between the fingers, yield a fœtid, disagreeable smell. Both kinds of smut are fungi, or parasitic plants, of the same nature as the mushroom. They are to be found upon the leaves and stems of many plants, giving a brown or scorched appearance. We know it to be fungus because, when under the lens of a microscope, it fully exhibits its vegetable character, and feeding on the juices of the plant infected, it destroys the structure of the grain to which it is attached.

Whatever may be the origin of this disease, it is easily propagated, and a few smutted grains will communicate the seeds of disease to very many, blighting the hopes of the farmer.

Happily for us, science and close observation present for our use an infallible remedy, and that is, a steep or wash of urine and salt. This has been tried again and again with success; but there can be little doubt that *a plain solution of salt* is all-sufficient; for we know that salt has an immediate and powerful effect upon all the fungus tribe. I would advise, therefore, to wash the seed first in pure water, then soak it in a solution of salt for the night, and no smut will be found in the succeeding crop. Lime water will produce the same effect, and so will a solution of vitriol; but common salt brine is within the easy command of every farmer, and will answer the desired end. Let no smut, therefore, be seen or known on Seneca county wheat. An old Farmer.—*Oaklands, N. Y., March*, 1850.

A WORD ON SMUT WHEAT, THE CAUSE AND PREVENTIVE.

Messrs. Editors:—In your Farmer for March, is an article from J. H. H., on the subject of "Smut in Wheat, and the cause of it," which I perused with much care. I saw that the subject was to be continued. The Farmer for April arrived, and my first attention was given to the continuation of the same subject. I anticipated that he was soon to arrive at the real and true *cause* of smut, when I found him among the "*roots* of young wheat," examining the "*vitality*" of the roots of the plants that produce smut; and had he continued his examination a little farther, he would have arrived at the true cause of "Smut in Wheat." But, unfortunately, he ran off from the track, or, in other words, instead of continuing to trace the effect to the cause, he turned about and followed the effect to its termination, viz: to the top of the plant, where he found the head containing the fruit (grain) of the cause which he sought, but not the cause itself, as yet. But it seems, from his last or improved article on this subject, that he has, in his opinion, arrived at the cause of "smut in wheat." He says: "Having, as I confidently believe, fully established the fact that smut in wheat is caused by the *operations of an insect*," he then proceeds to give said "operations" of the insect: "It perforates the glume (chaff case) of the grain, and deposits its '*nit*,' or '*egg*,'" And he says that this "insect appears to be brought to maturity at the time that it is usually earing, or 'heading' out, and the depositing of the nit or egg is commenced immediately thereafter."

It will be observed that, by the theory of J. H. H., the process by which smut is produced is after the heading out, &c. Now, if J. H. H. would go into a close examination to investigate the cause of heads of smut wheat, or the heads that his "*bugs*" have manufactured into smut, which stand, generally, through the field, one-fourth lower than those of the good wheat, I opine he would soon strike a vein that would lead to a different cause than that of insects producing smut.

Farmers generally know that vines are the *natural* food for a certain class of insects; that peas are the *natural* food for another class of insects, which by instinct perforate the peas and deposit their nits or eggs. So of potato tops, tomatoes, and various other vegetables; and so of smut wheat, peculiar for its odor, which is the *natural* food of still another class of insects; and by instinct, as the pea-bug, as appears from the discovery of J. H. H., deposits its "*nits*," or "*eggs*," in the berry. But I have never known the pea-bug, nor J. H. H.'s bug, to change the pea or berry to anything else, by the "*operations*" above alluded to, — they still remain the same. Now, it will be observed that J. H. H. admits, virtually, that the "*grain*" has formed its shape; for just then his *bugs* make their appearance, as by instinct, and deposit their *nits* or *eggs*. Now, we farmers know that the "*grain*" of smut wheat is globular; and I, for one, have never discovered that it was ever shaped like a berry of good wheat.

The phrenologists say my bump of marvelousness is small — that I will believe anything I can see — that I must have facts, &c. If J. H. H. will show me that his *bugs* by perforating a berry ("*grain*") of wheat changes its shape, after nature has formed it, and converts it to smut, I will give it up.

It frequently happens that one error begets another. It seems to have been the case with your correspondent, J. H. H. — that after he had discovered the cause of "smut in wheat," as he "*confidently*" believed, he (erroneously) "used" many ways "as *preventive remedies*," but to no effect; for he "occasionally" found his "old enemy (*bugs*) smutting" his wheat. Not having discovered his error, he continued his several experiments "for several successive years" — say some "twenty years," — and still he would "occasionally" find his "old enemy smutting his wheat again," which he thought "probably strayed over into his fields from some neighboring farm." After having had some success in raising good wheat, and consequently having good seed, he came to the conclusion that, after all, "*nature*" had as much to do with his success as himself.

Here lies the secrect of the *prevention* of "smut in wheat." If J. H. H. had separated the second and third quality of his wheat from the first, and had sown no other than the largest berries of wheat, his old enemy, (bugs,) nor those of his neighbors, would have never succeeded in manufacturing smut for him. Give "*nature*" good, large, plump, healthy seed, and I will guarantee a good crop of wheat, clear from smut or chess, weighing some 63 or 64 lbs. to the bushel.

Now, as I do not partake much of the marvelous, and inasmuch as I require *facts*, as above stated, I am willing to accord to others that which I require myself, viz: *facts*. I will proceed to state my experiments, observations, and experience, although it is with no small degree of diffidence that I do so, not being skilled in the science of farming, and not accustomed to writing on such subjects, especially being aware that I am differing from so able a writer as J. H. H., who is, I infer, a practical and scientific farmer; one who has been a long and close observer, and has had much experience in investigating the subject of his articles "on Smut in Wheat, and the cause of it." I am highly pleased with, and admire the very able manner in which his articles are penned, although I cannot concur in the conclusions he has arrived at, touching the cause of smut in wheat.

When I first commenced raising wheat in Genesee county, my wheat was very smutty. I was put to much trouble to prepare it for market. Albany was then our market. A number of years subsequent, our market for wheat changed to Rochester, where we obtained thirty-one cents per bushel. The price not warranting much pay for our trouble to cleanse our wheat from smut, we paid but little attention to it or its cause, or prevention. When the canal was in full operation, the market near, and price greater, we began to turn our attention to raising more wheat; and when we found that the price of our wheat was *docked* in consequence of smut, chess, &c., we began to think on the subject, and the first step was to ascertain the cause, in order to know the remedy. My neighbors were trying all the preventives they could think, or hear of; but to no purpose; therefore I did not attempt it myself.

I was in the habit of watching my wheat crop in the spring, to see if my wheat was like to be smutty. I soon observed that all those plants that were not so vigorous, and standing considerable below the average of the good wheat, proved to be smut wheat. This led me to the "*roots*," where I was led to examine the "*vitality*," not of the roots particularly, but of the *seed*, which I found from after experiments to be wanting sufficient to produce good wheat. Here the remedy was suggested to my mind. I had manufactured for me a double sieve, which would retain in the first or upper seive, the largest and plumpest seed to sow; the second seive retaining the second quality, which I appropriated to the use of my family; and the third quality, the smallest wheat falling on to the barn floor, to be fed to my fowls and pigs. I sowed a field of fifteen acres, where I almost invariably had more or less smut in my wheat, with the first quality, reserving one-eighth of an acre to experiment on by sowing one half of said piece with the second, and the remainder with the third quality — neither quality having any smut, chess, or other foul seed in it.

When I harvested my field, the crop from the first quality of seed stood high and uniform, the heads of the wheat were long and large, well filled and plump, weighing 63 or 64 lbs. to the bushel, and no smut nor chess to be found. That from the second quality was some ten inches, on an average, below that of the first quality, containing some smut and some chess — the heads of the wheat short, berry not very plump. The third quality was still lower than the second, some ten inches on an average, and nearly all smut and chess, with here and there a small, short head of wheat, and some of them part smut and part wheat — a very small berry.

I have never been troubled with my "*old enemy*" (smut) since; neither have the "*bugs from some neighboring farm*" been able to manufacture smut in my wheat grown from such seed as the first quality aforesaid. Here you see I have learned by long experience, (it being over twenty years since I have raised any smut wheat,) what is the *cause* of "smut in wheat" and what is a *preventive*, and accidentally the cause of chess and the preventive. I have less trouble in preparing my seed than by any other mode of preparation that I ever knew or heard of — have better and more wheat to the acre, and am sure of having my wheat pass for the first quality. It is not necessary to prepare my seed in this way every year.

The next thing that is wanting, is to make the process of separating the seed as aforesaid more convenient and of less labor; and as I am not possessed of a very large bump of constructiveness, I would suggest that T. D. BURRALL, or some one else of an inventive genius, would get up a separator for the purpose, which could be worked by hand, horse, or water power, as circumstances might require. E. T. —*Batavia, N. Y., April*, 1850.

THE WEED.

Messrs. Editors : — In the April number of the Farmer, p. 86, is an article on "A troublesome Weed." As I have had some dealings with it, I can say it is rightly named; and that many, if not all my neighbors, are dreaming that they are secure; but they must soon learn that the enemy has been at work while they slept.

In 1847, my father bought Seneca clover seed of Mr. Sawyer, Rochester. It was bought for the large kind, but proved to be the small; and still worse, in the summer of 1848 we were surprized to find any quantity of rank May-weed scattered over the lot, containing seventeen acres. Being ignorant of the nature of the *pest*, and an avowed enemy to *weeds*, we commenced a war of extermination, by pulling them up, (there was no trouble in finding them, being in full bloom,) but neglected to carry them off the field. After mowing, the field was plowed and wheat sown. Early last spring they appeared in full vigor. No pains were spared to destroy all that could be found through the season, though parts of the field were literally covered. I had hopes of seeing them no more, as I had spent over thirty days of faithful labor with them ; but this spring they have re-appeared in full uniform, and a hardier set of plants I never saw. I think they belong to the order *Pyrethrum inodorum* — scentless May-weed, feverfew. I know of no way of exterminating them but by summer cropping and weeding, though this is slow and expensive. I have saved a few of the seeds of last summer's crop, which I will leave at your office, for inspection, should any one wish to see them there before knowing what they are by experience. Yours, &c., Chas. McVean.—*Wheatland, April*, 1850.

"SMUT BUGS."

Our correspondents have spoken pretty freely of the theory advanced by J. H. H., and we regret the necessity which requires us to notice and dissent from the views of our esteemed correspondent, in reference to the common malady called "smut" in wheat being caused by an insect. We concede that all his statements of what he has seen are true. It is only against the inferences drawn from well known facts, that we speak or write. We have seen the weevil which he alleges causes seeds of wheat to blight and become "smut," both in its larva and perfect state. That its young can feed and wax fat on the sporules of the *uredo segetum* and those of the *uredo fetida*, are facts which we have had occasion to study, and which were first pointed out to us by Gen. Harmon, who took the same view of this matter that our friend J. H. H. does.

The instances are numerous where insects produce remarkable changes in the growth and appearance of plants ; but "smut" is so well known to be a parasitic fungus, which will grow as well without a "bug" as peas and wheat, that it is as philosophical to say that a skipper in a cheese made the cheese, as to say the egg or maggot of a weevil or "beetle" produces the food on which it subsists. Man feeds on mushrooms, and many insects devour parasitic plants, without being suspected of producing them. By planting seeds of wheat covered with the sporules or germs of smut, the next crop of wheat will be similarly affected, whether it be attacked by flies, or weevils, or not. No wheat should be sown without washing it thoroughly in strong brine, and then drying it in caustic lime. And it may be possible to kill the larvæ of the pea bug, and not destroy the germinating power of the seed. We wish that some reader who has peas with insects in them, would try his skill in killing the animal and not the vegetable, and report to the Farmer the result.

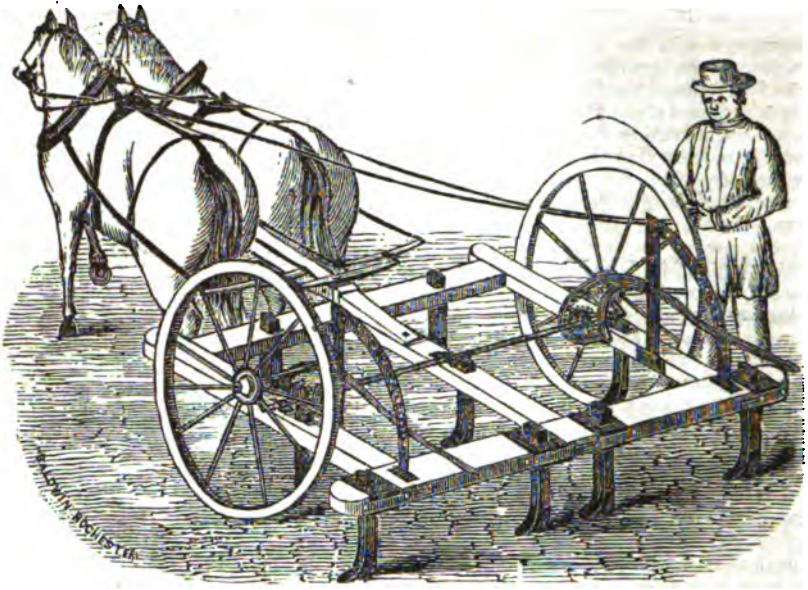
We have copied into the Agricultural Report for the Patent Office, from the last Journal of the Royal Agricultural Society of England, received in March, an admirable lecture on the "Parasitic Fungi of the British Farm," with numerous illustrations. We shall be careful to send a copy of this to our friends J. H. H. and Gen. Harmon. Recent improvements in microscopes have literally thrown much new light on both vegetable and animal organisms too small to be studied with success by old instruments. A single smut ball, which is smaller than a perfect wheat kernel, contains some four millions of sporules, each one of which will doubtless grow and produce other millions, under favorable circumstances.

THE COW FOUND.

Messrs. Editors :—In the Farmer for March, I saw an article respecting the famous milch cow of Mr. John Johnson, giving forty-five quarts per day, which turned out to be about twenty-four, according to Mr. Wright, who went and saw the famous ten quart pail ; and he now offers to give $500 for any cow that will give forty quarts per day. Now, Messrs. Editors, please inform Mr. Wright that I want his money. I have a cow that will fill any two ten quart pails that he can find in Seneca, or any other county, at one milking, when she is milked regular ; and no gammon or fish story about it. If he doubts it, he will please travel a little further southeast in this same Seneca county, "in the leafy month of June," 1850, and see with his own eyes a cow eight or nine years old, of good size, with the largest, finest, and squarest udder he ever saw in all his travels, "east and west." She has just dropped a calf. She gave twelve quarts this morning ; calf three days old running with her.

Now, Messrs. Editors, without any puffing, this cow stands on her own merits ; and I should like to have your practical Mr. Wright come and see her for himself. I weighed one mess of her milk, not the largest, which weighed 32½ pounds. Wm. H. Smith.—*Covert, Sen. Co., N. Y., March* 18, 1850.

Wrong application of Manure.— *Eds. Genesee Farmer :* — Many valuable essays have been published, relative to the best mode of applying manures ; yet, instances are numerous where farmers and others, instead of placing them in a situation to be received by living vegetables, apply them in abundance to seasoned timber, and to their own organs of respiration. For instance : they pile heaps six feet high against their barns, perhaps under their stable windows ; and the right proportion of moisture being present, when the weather becomes sufficiently warm, a decomposition takes place, and two-thirds of all that is valuable escapes in gas, to poison themselves and neighbors, and annoy all who may pass to the leeward of the pile. A few moments labor in turning over the stack, would prevent this active fermentation, save their buildings, retain their manure, and preserve the health of their own and their neighbors' families. M. Hutchinson.—*King's Ferry, N. Y.*, 1850.



ROGERS' PATENT WHEELED CULTIVATOR.

Our mechanics are certainly taking a deep interest in the improvement of agricultural implements.—There appears to be a more lively competition at this time than ever before, as an examination of our advertising pages will readily show, and the farmers will no doubt reap the benefit of this competition in the production of good implements at moderate prices. Some of these machines may not stand the test of *use*, while many, we have no doubt, will be found truly valuable to the farmer, doing his work well and cheap. Perhaps of no agricultural machine has there been such a variety produced within the last few years, as of *Grain Drills.* Scarcely a number of the Farmer is issued, but some new drill is presented to the notice of agriculturists, through our advertising columns, or some old one improved urges its claims upon the attention of the cultivators of the soil. We shall endeavor to keep our readers advised of the various improvements, and particularly to give the experience of our correspondents in their use. Of the advantage of drilling, they have already spoken pretty freely.

But, our object at this time was more particularly to speak of *Rogers' Patent Wheel Cultivator*, an engraving of which we give at the head of this article. Speaking of this machine, a correspondent says: "From its construction, it is well calculated to work after deep and thorough plowing; it pulverizes and mixes the ground more perfectly than any other machine now in use; it destroys thistles and other weeds more effectually than any other process of culture. It is a labor-saving machine — one team will go over about the same amount of ground per day (and the work will be better done) as four will with the common plow."

This machine was exhibited at the last State Fair, and took the first premium. The manufacturers, however, think that valuable as this machine was before, as proved by the committee who awarded the premium, they have much improved it the past winter, in the raising of one wheel at a time, or both if required, and the manner of "hitching to."

It is manufactured by J. Ganson & Co., of Brockport, in this county, who also manufacture *McCormick's Virginia Reaper* and *Aikins' Grain Drill*, both advertised in this number.

HARD-PAN SOILS.

An excellent friend of the Farmer, Mr. Oscar F. Warren, desires us to give a chapter on *Hard-pan Soils*, which is far easier than to plow and mellow them, as we know from considerable experience at the plow handles. It is of no use to mince the matter at all; *the under-crust must be broken*, and well broken, before one can have a deep, friable soil, on shallow, hard-pan land. Last autumn, a premium was awarded to a sub-soil plow which we presented at the great Fair of the Southern Agricultural Association, at Stone Mountain, in Georgia. Cultivators regard this implement as better than the New-England sub-soil plows; and if it should be our lot to dig an honest living out of the hard-pan hills of old Chenango, as in days past, a sub-soil plow would follow in the furrow of the turning one, and break the iron bound earth into small fragments. The Southern implement to which allusion has been made, is essentially a winged-coulter, made strong, and placed in a stout beam. A good single team can pull it without severe labor. Late English agricultural journals abound in discussions on the subject of pulverizing "iron-pan" in sub-soils. In some, the conglomerate mass is so petrified, that six heavy horses are barely able to break the crust; but experience proves the benefit and ultimate profit of the operation. If a soil which is six inches deep is worth $20 per acre, it will be worth $40, or twice as much, when the soil is made twelve inches deep. The art of manufacturing soils of any desirable depth, is destined to experience great improvements within a few years. Science, practical skill, and indomitable perseverance will add four-fold to the productiveness of all arable lands whose cultivation is necessary. Already lime is used on hard-pan soils with twice the good effects which were formerly realized. A more thorough system of tillage, with a few powerful fertilizers, like the excretions of stall fed cattle, guano, or night-soil, is working wonders in Belgium and in some parts of France, as well as in England and Scotland. No industrious man should fear the task of changing a "pan" into a kindly, friable soil. Labor and skill can conquer every obstacle, and achieve the most brilliant results. The next generation will laugh at the folly and short-sightedness of their fathers and grandfathers, who cultivated the earth only from three to six inches in depth. The next generation will not waste, as we do, fertilizing elements enough to form 500,000,000 bushels of wheat.

FARMING IN NORTH CAROLINA

After ordering several copies of this journal, a gentleman in North Carolina concludes his letter as follows :—

As I am writing, I have concluded to make a few inquiries on the subject of agriculture. I am just making a small commencement at farming, and having been heretofore principally engaged in other pursuits, I have but little practical knowledge of it. I have, however, acquired from reading agricultural works, a slight *tinge* of theory : at least, sufficient to induce me to believe that our farming in this section may be vastly improved. The soil here is a light, sandy, pine soil. underlaid by a stiff, red clay, which, from the color, I think contains a considerable quantity of iron. Lime can be purchased twenty miles from here, at nine or ten cents a bushel for slaked and sixteen or eighteen cents for unslaked. Plaster can perhaps be procured as cheap from New York as from any other source, in which case the carriage alone. to this place, will amount to about $1.50 per 100 lbs. Of swamp muck we have inexhaustible quantities, and the same may be said of forest leaves. I also keep a small stock of cattle and a few horses. These, with such other matters as the exhausted farms in this section generally afford, are about all the means of making manure I have at command. I should have stated that I feed my cattle under sheds, and keep them constantly, during the winter, in the dry. Now, my aim is to improve annually, by manuring, &c., a small portion of my farm, if it were only from four to six acres, so as to enable me to raise good crops of corn and roots, and to keep the rest of the farm (of which there are some thirty or forty acres under cultivation,) from getting worse ; or rather, I wish it to improve. It may be necessary to state that I procured a sub-soil plow last fall from the North, which I am using.

Now, I wish to know how I can effect the above object most economically ; or, in other words, how can I make the most manure and improve my farm with the least outlay of money, having but one hand besides myself to perform the labor? You will recollect that the farm is so badly exhausted, that the greater portion will produce only from ten to twenty bushels of corn per acre, and some four or six bushels of wheat. Will the use of the sub-soil plow, in your opinion, add much to the productiveness of a soil that has been plowed only some two or three inches for some twenty or thirty years ; as has been the case with mine ? Would it be of advantage to procure some small variety of corn from the North, annually, for seed, (say the Dutton.) and would it allow to be planted so closely as it is at the North ? How many cords of stable or barn-yard manure, that has been kept out of the weather, should be applied per acre ? Will ashes, leached or unleached, expel ammonia from animal manures ? or, is it more advantageous to apply them to the soil in some other manner, and how ? Will air-slaked lime expel ammonia from dung, or be otherwise injurious ? Can copperas (sulphate of iron) be used with advantage or economy, when it can be bought for three cents per pound, and will it fix ammonia in manure ? Is there any other substance that can be used to advantage instead of plaster, to fix ammonia in manure or in the soil ? or would it be good policy to send to New York for plaster, and would the advantage to the soil be such as to justify the expense of procuring it as above to apply to the soil ?

Perhaps I should have stated that red clover springs up spontaneously, even on the poorest of my land ; and on a portion that was tolerably rich, I saw a growth of clover so heavy that it was difficult to cure the grass after being cut, the growth till June being from two to three feet high, and it laid over a foot thick on the ground, after being cut and spread.

Can beets, turneps, carrots, parsneps, artichokes, &c., &c., be profitably cultivated here, for stock ? I cut my corn at the ground in the fall, and find the stalks better for cattle than the hay raised on our natural meadows. I have done this for five or six years ; but our corn grows so tall that it is heavy work to handle the stalks. J. R. Moser.—*Flint Rock, N. C., Feb'y*, 1850.

Our correspondent is on the right track, but should experiment with caution. No one should pay $1.50 per 100 lbs., or $30 per ton for gypsum, for agricultural purposes. Nor should he pay $3 per 100 lbs. for copperas, to apply to the dung heap. Common salt is equally valuable to fix ammonia, and should not cost much over half a cent a pound.

The red clay sub-soil of our friend doubtless contains sulphate of iron ; and the application of lime will give him gypsum, or sulphate of lime, at the cheapest rate. Both iron and alumina in stiff soils are combined chemically not only with sulphuric acid, but phosphorie acid. When the oil of vitriol (sulphuric acid) unites with alumina and potash, the well known salt called *alum* is formed. In some wet, tenacious sub-soils, this salt, as well as copperas, abounds. By draining these soils, cultivating deep, and using lime or marl, this alkaline mineral will take phosphoric acid away from alumina and iron, and form *bone earth*, or the mineral which makes the bones of man and all his domestic animals.

In addition to lime, (and draining, if necessary,) our correspondent should procure all the leached and unleached ashes which can be had at a low price. Leached ashes are rendered more soluble and valuable by being composted with fermenting manure. There is no danger of losing ammonia by using lime or unleached ashes in the same way, provided the heap be well covered with muck, charcoal, loam, garden mold, or rotted forest leaves ; but, as a general rule, it is best not to mix manure and lime, either caustic or a carbonate. With sour swamp muck, straw, trash, or forest leaves, lime and caustic ashes mix advantageously.

As to the amount of manure which one should put on an acre, every farmer should be the best judge who knows best the condition of his land, the crop he wishes to make, the strength of his fertilizers, and the quantity he has as compared with the area to be manured. With a good market for butter, and by raising clover, corn, peas, rye, carrots, and sweet potatoes for his cows, our friend can produce a vast quantity of cheap manure, and realize a good deal of money for his butter. If he will grow a few hundred bushels of such fine Scuppernong grapes as we have eaten in North Carolina, and put them up right, to keep fresh for the New York market, they will bring him in a handsome income.

Corn intended for a forage crop, should be cut as soon as the tassels are in blossom, and cured immediately. Small northern corn is best to cut up at the ground. Before this meets the eye of Mr. Moser, he will have received from the Patent Office a few packages of improved Morlyland corn, for seed.—Green crops and lime turned in, will give you a rich soil in a few years. As a general rule, it is better to apply ten bushels of lime per acre for five years in succession, than to put fifty bushels on at a dose.

The substantial prosperity of a country is always in the ratio of its agricultural industry and wealth.

NEW YORK STATE AGRICULTURAL SOCIETY.

PREMIUMS AT ANNUAL SHOW IN SEPT., 1850.

CATTLE.

Short Horns.—Best bull over 3 years old, $25; 2d do, 15; 3d do. 5. Best 2 years old bull. $20; 2d do, 10; 3d do, 5. Best 1 year old bull, $15; 2d do. 10; 3d do. 5. Best bull calf, $10; 2d do, Trans. and 3. Best cow over 3 years old. $25; 2d do 15; 3d do. 5. Best 2 years old heifer. $29; 2d do. 10; 3d do. 5. Best 1 year old heifer, $15; 2d do, 10; 3d do. 5. Best heifer calf, $10; 2d do, Trans. and 3.

Devons.—Best bull over 3 years old, $25; 2d do. 15; 3d do. 5. Best 2 years old bull, 20; 2d do. 10; 3d do. 5. Best 1 year old bull, 15; 2d do, 10; 3d do. 5. Best bull calf. 10; 2d do, Trans. and 3. Best cow over 3 years old. 25; 2d do. 15; 3d do. 5. Best 2 years old heifer. 20; 2d do. 10; 3d do. 5. Best 1 year old heifer, 15; 2d do. 10; 3d do, 5. Best heifer calf. 10; 2d do. Trans. and 3.

Herefords.—Best bull over 3 years old. $25; 2d do, 15; 3d do. 5. Best 2 years old bull. 20; 2d do. 10; 3d do. 5. Best 1 year old bull, 15; 2d do, 10; 3d do. 5. Best bull calf. 10; 2d do, Trans and 3. Best cow over 3 years old. 25; 2d do, 15; 3d do. 5. Best 2 years old heifer, 20; 2d do. 10; 3d do. 5. Best 1 year old heifer, 15; 2d do. 10; 3d do. 5. Best heifer calf. 10; 2d do. Trans. and 3.

Ayrshires.—Best bull over 3 years old. $25; 2d do. 15; 3d do. 5. Best 2 years old bull. 20; 2d do. 10; 3d do. 5. Best 1 year old bull, 15; 2d do. 10; 3d do, 5. Best bull calf. 10; 2d do, Trans. and 3. Best cow over 3 years old. 25; 2d do. 15; 3d do, 5. Best 2 years old heifer, 20; 2d do. 10; 3d do. 5. Best 1 year old heifer, 15; 2d do. 10; 3d do, 5. Best heifer calf, 10; 2d do, Trans. and 3.

Natives, and cross between improved and native cattle.—Best cow over 3 years old. $20: 2d do. 12; 3d do. 4. Best heifer 2 years old. 15; 2d do. 10; 3d do 3. Best 1 year old heifer, 10; 2d do, 8; 3d do. 8. Best heifer calf, 3; 2d do, Trans.

Working Oxen.—*Over four years old*—Best team of 20 yoke from any county, $50; 2d do, 30. Best team from any town, not less than 10 yoke, 25; 2d do, 20; 3d do, 10. Best yoke of oxen, 20; 2d do. 15; 3d do. 5.

Steers.—*Three years old*—Best 10 yoke from any county, $20. Best single yoke. 10; 2d do. 8; 3d do, Trans. and 3. To boys under 16, training yoke of steers, best, Silver Medal; 2d do, Trans. and 3 *Two years old*—Best ten yoke from any county. $15. Best single yoke. 8; 2d do. 5; 3d do. Trans. and 3. To boys under 16 training yoke of steers, best, Silver Medal; 2d do, Trans. and 3. *One year old*—Best ten yoke from any county. $15. Best single yoke. 8; 2d do. 5; 3d do, Trans. and 3. To boys under 16 training yoke of steers, best, Silver Medal; 2d do. Trans. and 3.

No yoke of cattle competing in teams can compete as a single yoke; nor can a single yoke, competing for premium, be allowed to compete in the county or town teams.

MILCH COWS.

For best milch cow, $20.

The cow to be kept on grass only during the experiment, and for fifteen days previous to each period of trial. The time of trial from 10th to 20th of June, and from 10th to 20th of August.

Statement to be furnished, containing—

1st. The age and breed of cow, and time of calving.

2d. The quantity of milk in weight, and *also* of butter, during each period of ten days.

3d. The butter made, to be exhibited with the cow, at the Fair, and the statement to be verified by the affidavit of competitor and one other person conversant with the facts.

FAT CATTLE.

Best pair fat oxen 4 years old. $25; 2d do. 15; 3d do. 10. Best single ox over 4, 15; 2d do. 10; 3d do. 6. Best fat cow over 4, 15; 2d do. 10; 3d do. 6. Best pair fat steers, four years old or under. 15; 2d do. 12; 3d do. 8. Best single steer. 4 years or under. 10; 2d do. 6; 3d do 3. Best single heifer, 4 years or under, spayed or not. 10; 2d do. 6; 3d do, 3.

For animals fattened on hay and grass alone (after one year old)—Best pair oxen over 4 years old, 20; 2d do 12; 3d do. 8. Best single ox over 4, 10; 2d do. 6; 3d do, 4. Best cow over 4. 10; 2d do. 6; 3d do, 4. Best pair fat steers, 4 or under, 12; 2d do. 8; 3d do. 5. Best single steer. 4 or under. 8; 2d do. 3; 3d do, Trans. Best heifer, 4 or under, spayed or not, 8; 2d do, 3; 3d do, Trans.

Applicants for premiums on fat cattle must furnish *particular statements of the manner of feeding, and kind, quantity and cost of food, and all the expenses connected with the fattening.*

Animals exhibited in pairs cannot compete for single premiums.

FAT SHEEP.

Long Wooled.—*Over two years*—Best fat sheep. $5; 2d do. 3; 3d do. Morrell's Shepherd. *Two years or under*—Best fat sheep, 5; 2d do, 3; 3d do. Morrell's Shepherd.

Middle Wooled.—*Over two years*—Best fat sheep, $5; 2d do, 3; 3d do. Morrell's Shepherd. *Two years or under*—Best fat sheep, 5; 2d do. 3; 3d do. Morrell's Shepherd.

Statements required as to the *manner of feeding*, as for fat cattle.

HORSES.

Class I—*For all work.*—Best stallion, over 4 years old, $20; 2d do. 12; 3d do. 8; 4th do. Youatt. Best brood mare, with foal at her foot. 20; 2d do. 12; 3d do. 8; 4th do. Youatt.

Class II—*Draught Horses.*—Best stallion, over 4 years old, $20; 2d do, 12; 3d do. 8; 4th do. Youatt Best brood mare, with foal at her foot, 20; 2d do. 12; 3d do. 8; 4th do. Youatt.

Class III—*Blood Horses.*—Best stallion, over 4 years old, $20; 2d do, 12; 3d do, 8; 4th do. Youatt. Best brood mare, with foal at her foot, 20; 2d do, 12; 3d do, 8; 4th do, Youatt.

Three years old Stallions and Mares.—Best stallion, 3 years old, $15; 2d do. 10; 3d do, Youatt; 4th do, Trans. Best stallion, 2 years old, $10; 2d do, Youatt; 3d do, Trans. Best mare, 3 years old, 15; 2d do, 10; 3d do, Youatt; 4th do, Trans. Best mare, 2 years old, $10; 2d do, Youatt; 3d do, Trans.

One year Colts.—Best stallion, $5; 2d do, Youatt; 3d do, Trans. Best mare, $5; 2d do, Youatt; 3d do, Trans.

Matched Horses.—Best pair, Diploma and $15; 2d do, 10; 3d do, 8; 4th do, 5.

Geldings.—Best gelding, Dip. and $10; 2d do, 8; 3d do, 6; 4th do, 4.

SHEEP.

Class I—*Long Wooled.*—Best buck, over 2 years, $10; 2d do, 8; 3d do, 5. Best buck, 2 years or under, 10; 2d do, 8; 3d do, 5. Best pen 5 ewes, over 2 years, 10; 2d do, 8; 3d do. 5. Best pen 5 ewes, 2 years or under, 10; 2d do, 8; 3d do. 5. Best pen 5 buck lambs, 8; 2d do. 3 and Morrell's Shepherd. Best pen 5 ewe lambs, 8; 2d do, 3 and Morrell's Shepherd.

Class II—*Middle Wooled.*—Best buck, over 2 years, $10; 2d do, 8; 3d do, 5. Best buck, 2 years or under, 10; 2d do, 8; 3d do, 5. Best pen 5 ewes, over 2 years, 10; 2d do, 8; 3d do. 5. Best pen 5 ewes, 2 years or under, 10; 2d do, 8; 3d do, 5. Best pen 5 buck lambs, 8; 2d do, 3 and Morrell's Shepherd. Best pen 5 ewe lambs, 8; 2d do. 3 and Morrell's Shepherd.

This class includes South Down, Norfolk, Dorset, Native, &c.

Class III—*Merinos.*—Best buck, over 2 years, $10; 2d do, 8; 3d do. 5. Best buck, 2 years or under, 10; 2d do. 8; 3d do, 5. Best pen 5 ewes, over 2 years, 10; 2d do. 8; 3d do. 5. Best pen 5 ewes, 2 years or under, 10; 2d do, 8; 3d do. 5. Best pen 5 buck lambs, 8; 2d do. 3 and Morrell's Shepherd. Best pen 5 ewe lambs, 8; 2d do, 3 and Morrell's Shepherd. Best sample of wool not less than ten fleeces, Silver Medal.

Samples of each fleece prepared for exhibition to be deposited with the Secretary of the Society, to be preserved in the Agricultural Museum.

Class IV—*Saxons.*—Best buck, over 2 years, 10; 2d do. 8; 3d do. 5. Best buck, 2 years or under, 10; 2d do. 8; 3d do, 5. Best pen 5 ewes, over 2 years, 10; 2d do, 8; 3d do, 5. Best pen 5 ewes, 2 years or under, 10; 2d do, 8; 3d do, 5. Best pen 5 buck lambs, 8; 2d do, 3 and Morrell's Shepherd. Best pen 5 ewe lambs, 8; 2d do, 3 and Morrell's Shepherd. Best samples of wool not less than 10 fleeces, (as in Merino class,) Silver Medal.

Natives and Grades.—Best buck 2 years old, $10; 2d do, 8; 3d do, 5. Best buck, 2 or under, 10; 2d do. 8; 3d do, 5. Best pen 5 ewes, 2 years, 10; 2d do. 8; 3d do, 5. Best pen 5 ewes, 2 years or under, 10; 2d do. 8; 3d do. 5. Best pen 5 buck lambs, 8; 2d do. 3 and Morrell's Shepherd. Best pen 5 ewe lambs, 8; 2d do, 3 and Morrell's Shepherd.

SHEPHERD'S DOG.

Best shepherd's Dog, $5; 2d do, Morrell's Shepherd.

Evidence to be furnished of the thorough training of the dog, otherwise no premium can be awarded.

SWINE.

Best boar over 2 years old. $10; 2d do, 5. Best boar 1 year old, 10; 2d do, 5. Best boar 6 months and under 1 year, 8; 2d do. 3. Best breeding sow over 2 years old, 10; 2d do, 5. Best breeding sow one year old. 10; 2d do, 5. Best sow 6 months and under 1 year, 8; 2d do, 3. Best lot of pigs, not less than 5, under 10 months, 10; 2d do, 5.

POULTRY.

Best lot of Dorkings, not less than 3, 1 cock and 2 hens, $3; best lot of Polands, do do, 3; best lot of Large Fowls, do do, 3; best lot of turkeys, do, 3; best lot of Muscovy ducks, do, 3; best lot of small ducks, do, 3; best lot of Guinea Hens, not less than 6, 3; best pair large geese, 3; best pair wild geese, 3; best lot of poultry owned by exhibitor, (statement to be furnished and verified,) 5; best exhibition of pigeons, 3; best lot of wild turkeys, 3.

PLOWS.

Judges—A. Van Bergen, Coxsackie; John Delafield, Oaklands; J. Stanton Gould, Hudson; Sanford Howard, Albany; B. B. Kirtland, Greenbush.

Best sod plow for stiff soils, furrow not less than 7 inches in depth nor over 10 inches width, Diploma and $15; second best do, 10. Best sod plow for light soils, furrows 6 and 12 inches, Diploma and 15; 2d best do. 10. Best plow for fallows or "old land," Dip. and 10; 2d best do, 8. Best sub-soil plow, Diploma and 8. Best side-hill plow, Diploma and 8.

Trial to take place the second week in June, 1850, at Albany, to commence on Tuesday, 4th of June.

Competitors must become members and enter their names and plows at the rooms of the Society, by the 15th of May, with B. P. Johnson, Secretary; and the plows to which premiums are adjudged, to be deposited in the rooms of the Society, for exhibition, if plows of the same pattern are not already there.

The committee will meet at the Society Rooms on Monday, 3d June, to make arrangements for the trial. Trial to continue until the committee and competitors are fully satisfied, so that the awards may with confidence be relied upon, from the thorough trial made, leading to practical and satisfactory results.

N. B. A general competition is invited under this head, as the trials will be conducted and the decisions made without regard to any former trials or awards, and will be open to *competitors from any part of the world.*

In deciding the general questions, what are the best plows? the committee will be governed by the following principles: 1st, the character of the work performed; 2d, the power required in draught; 3d. quality of materials, durability and cost of the implements.

For *stiff* soil. excellence of work shall consist first. in leaving the furrow-slice light and friable ; *second*. in so disposing the sod and all vegetable matter as to insure its ready decomposition.

For *sandy* soil. or that which is already *too light*. the points in regard to quality of work will be, *first*. thoroughly burying the vegetable matter : and *second*, leaving the ground generally level.

For fallow. or old land. the principal point in reference to the quality of work will be thorough pulverization and friability of the soil.

In determining the power required in draught, the most perfect instrument will be used. and the trial will be conducted in the most careful and thorough manner.

The same implement for testing draught, and the same team, will be used for all plows in the same class.

The plows may be held by the competitors or by persons appointed by them. as may be preferred.

PLOWING MATCH.

First premium. $10; 2d do, 8; 3d do. 5: 4th do. Trans.

Boys under 18 years of age--First premium. $10; 2d do, 5; 3d do. Trans.

The competition for plowing open to competitors out of the state.

The name of plowman must be given. as well as the kind of plow used, at the time of entry.

Rules to be observed—depth of furrow 7 inches, width 10 inches.

FARM IMPLEMENTS NO. I.

Best farm wagon, $5; best harrow. 3 ; best corn cultivator. 3; best fanning mill. 6 ; best corn stalk cutter, 5 ; best straw cutter, 3; best corn and cob crusher. by horse power. 5; best clover machine. 5; best flax and hemp dresser, 5; best horse cart for farm, 3; best ox cart. 2; best horse rake, 2: best ox yoke. 2; best roller for general use, 5; best clod crusher and roller combined, 5.

FARM IMPLEMENTS NO. II.

Best plow harness, $2; best wagon harness for farm, 2; best carriage harness. 3; best saddle and bridle for general purposes, 2; best dozen axes, 2; best churn. 2; best cheese press, 2; best six milk pans, 2; best potato washer, 2; best grain cradle, 2; best six hand rakes, 2; best six hay forks. 2; best six grass scythes, 2; best six cradle scythes, 2; best six manure forks, 2; best hay rigging. 2; best lot of grain measures, 2; best dozen wire brooms, 3; 2d do do, 2; best dozen Shaker, or twine tied brooms, 3; 2d do do, 2.

Samples of each kind of brooms to which premiums are awarded to be deposited in Museum.

FARM IMPLEMENTS NO. III.

Best horse power for general purposes, on the sweep or lever principle, $5 and Diploma; best horse power on railroad and endless chain principle. 5 and Dip ; best iron horse power. 5 and Dip ; best thrasher. to be used with horse or steam power. 5 and Dip.; best seed planter. for hand or horse power. for hills and drills. 3 and Dip.; best wheat drill. not less than 6 drills. Dip.; best grain drill, with apparatus for depositing manure. Dip.; best cultivator and drill combined, Dip ; best broad-cast sower. Dip ; best wheat cultivator, Dip.; best portable saw-mill. for wood, fences, and for farm use. Dip.; best corn sheller. horse power. Dip.; best corn sheller, hand power. Dip ; best vegetable cutter. Dip ; best and most numerous collection of agricultural implements. 20 and Dip.; best and most numerous collection of agricultural implements, manufactured in the State of New York. by or under the supervision of the exhibitor. materials. workmanship. utility. durability, and prices to be considered in both cases. 20 and Dip.

In these last cases, a catalogue of the implements, and the price of each must be given, and certificate as to the manufacture

P. S. Persons presenting agricultural implements, or articles of mechanical ingenuity and utility. are requested to furnish the Secretary with a particular description of the article, the price. and place where it can be had—as it is intended to publish a descriptive list of the articles exhibited at the Show, for the benefit of manufacturers and purchasers.

MACHINERY, AND IMPLEMENTS NO. IV.

For the most valuable machine or implement for the farmer, either newly invented, or an improvement on any one in use, Silver Medal.

Steam Engine for Farm Purposes.—Best steam engine for agricultural purposes on the farm—being moveable—which from its utility in saving labor and expense, simplicity and cheapness of construction, or other circumstances, shall be deemed deserving of public notice. The report must be accompanied by drawings and description of the machine, and by a model—the model to be deposited in Society's Museum, Dip. and $25; 2d do do, $20.

Silver Medals will also be awarded for articles of mechanical ingenuity, and machinery deemed useful.

(Steam Power will be furnished on the grounds to drive such machinery as may require it, with shafting—the exhibitors to furnish their own bands, and to notify the Secretary, previous to the Fair, as to the motion they may require.)

DAIRY.

Best lot (quality as well as quantity considered) made from five cows in 30 consecutive days, 25 lbs. of the butter to be exhibited, $25; 2d do, 15; 3d do, 10.

Compliance with the following rules will be strictly required of those who compete for these premiums, viz:—The cows to be fed on pasture, green corn stalk fodder, or grass cut for the purpose, only. No grain, roots, or slops of any description, to be fed during the trial The cows to be owned by the competitors previous to the first day of February. 1849 The milk drawn from the cows on some one day during the trial to be accurately weighed and measured. and the result stated. A sample of at least 25 pounds of the butter so made to be exhibited at the Show for the inspection of the examining committee. The particular breed of cows to be stated. if known. and the method of making and preserving the butter A certificate signed by the owners of the cows and at least one other person who assisted in milking and making the butter. detailing the above particulars. will be required.

Let the above regulations be observed. and an opinion approximating to accuracy may be formed by the public. which of the several breeds of cows are the best for dairy purposes; and from those that prove the best. further improvements may be made.

Best 25 lbs. butter. made in June. $10; 2d do. 5; 3d do, Trans. Best 50 lbs. made at any time. $15; 2d do. 10; 3d do. 5; 4th do, Trans Best half dozen butter firkins. $2. Best half dozen butter tubs. $2.

The claimants for premiums must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping: the treatment of the cream and milk before churning. winter and summer: the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substance has been employed; also whether in the use of any variety of salt injurious results have occurred. if so. state variety and where manufactured.

The butter offered for premiums must be presented in butter tubs. jars or firkins.

Girls under 21 years of age.—Best lot of butter not less than 10 lbs . made at any time. Silver Milk Cup; 2d do. Pair Butter Knives; 3d do, Sett Tea Spoons.

A statement of the manner of making the butter must accompany each sample.

CHEESE.

One year old and over.—Best 100 lbs. cheese, $20; 2d do. $10; 3d do, 5; 4th do, Trans.

Less than one year old.—Best 100 lbs.. $15; 2d do, 10; 3d do, 5; 4th do, Trans. Best half dozen cheese boxes, $1.

Those who present cheese for the premiums offered, must state in writing the time it was made; the number of cows kept; whether the cheese was made from one, two, or more milkings; whether any addition is made of cream; the quantity of rennet used, and the mode of preparing it; the mode of pressure; and the treatment of cheese afterwards and the kind of salt used.

SUGAR.

Best 25 lbs. maple sugar, $10; 2d do, 5; 3d do 3; 4th do, Trans.

The process of manufacturing and clarifying must accompany the samples offered.

HONEY AND BEE-HIVES.

Best 20 lbs., $5; 2d do, 3; 3d do, 1. Best bee-hive, Diploma.

The honey to be taken up without destroying the bees. Kind of hive to be specified. with a description of its construction.

MISCELLANEOUS ARTICLES.

Best iron gate for farm purposes. Diploma: best ornamental cast iron vase on pedestal, Dip.; best water pipe of water lime, or other durable material other than iron or lead. Dip ; best sample drain tile, Dip.; best drain tile or pipe draining machine, Dip. and $10; best quarter acre osier willow and the specimen of product manufactured. $5; best wire hurdle fence. Dip.; best water ram or other hydraulic apparatus. Silver Medal; best wire fence for farm purposes. with full description, cost of construction, and evidence of its adaptation to practical. beneficial, and economical uses, Silver Medal

For improvements in machinery useful to the farmer, and having valuable properties, and not included under any head of any of the regular premiums. discretionary premiums will be awarded.

DISCRETIONARY DEPARTMENT.

Under this general head, premiums will be awarded upon articles of ingenuity, usefulness and merit. which may be exhibited, which are not provided for in the lists of premiums.

In the several Discretionary Divisions. Diplomas. Silver Medals, large and small, Prof. Norton's Prize Essay. Downing. Thomas' Fruit. and Transactions. will be awarded, as the importance and perfection of the several articles shall demand.

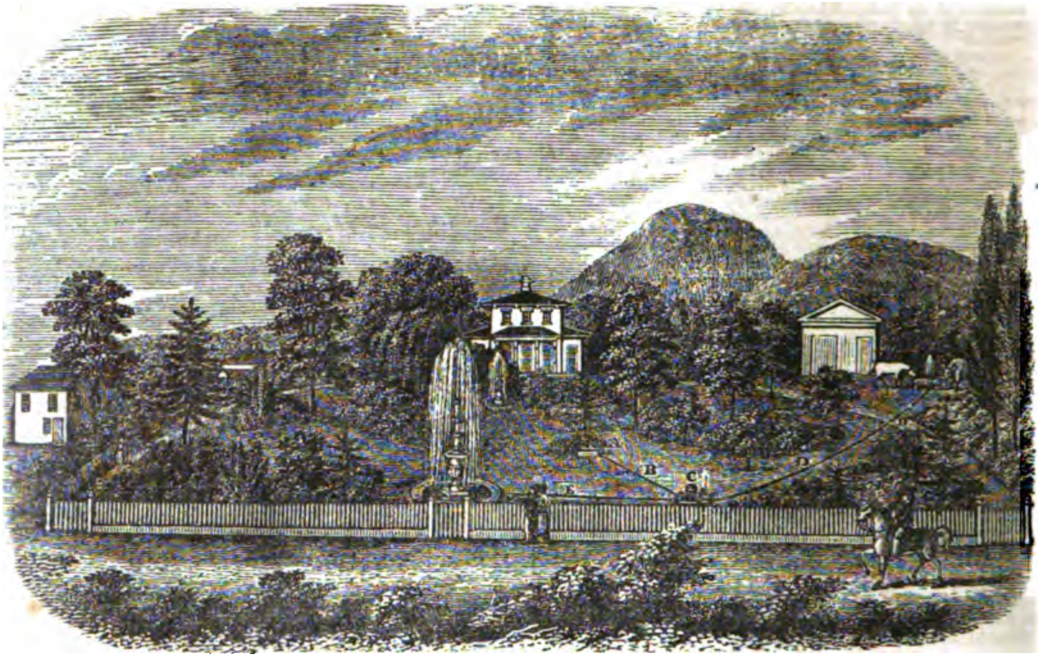
FOREIGN STOCK.

Cattle.—*Two years or over*—Best *Short Horn* bull. Dip. and $25; best heifer or cow, Dip. and 25. Best *Devon* bull, Dip. and 25; best heifer or cow, Dip. and 25. Best *Hereford* bull, Dip. and 25; best heifer or cow, Dip. and 25. Best *Ayrshire* bull Dip. and 25; best heifer or cow, Dip. and 25.

Horses.—*Over four years*—Best blood stallion, Dip. and 20; best brood mare, Dip. and 20. Best stallion horse of all work, Dip. and 20; best brood mare, Dip. and 20. Best stallion draught horse, Dip. and 20; best brood mare, Dip. and 20.

Sheep.—*Long Wooled*—Best buck, Dip. and $10; best pen five ewes, Dip. and 10; best pen five buck lambs, Dip. and 5; best pen five ewe lambs, Dip. and 5. *Middle Wooled*—Best buck, Dip. and 10; best pen five ewes, Dip. and 10; best pen five buck lambs, Dip. and 5; best pen five ewe lambs, Dip. and 5. *Merinos*—Best buck, Dip. and 10; best pen five ewes, Dip and 10; best pen five buck lambs, Dip. and 5; best pen 5 ewe lambs, Dip. and 5. *Saxons*—Best buck, Dip. and 10; best pen five ewes, Dip. and 10; best pen five buck lambs, Dip. and 5; best pen five ewe lambs, Dip. and 5.

(*To be continued.*)



THE HYDRAULIC RAM.

Eds. Farmer:—I have heard of a machine to force water above its fountain head. I am very anxious to elevate my spring water forty-three feet, which will bring it to my wood-house, a distance of seven rods. Can you, through your excellent agricultural paper, benefit me, as well as your readers generally, by giving a description of the machine, together with the probable expense of elevating my spring water as above stated, and also where it can be had? W. B. Coryell.—*Lodi, N. Y., Jan'y,* 1850.

We know of no better way to give information, than by answering the communications we are constantly receiving, especially when they seek information of the highest importance to farmers generally. And we prefer, as often as we can, to have them answered by other correspondents, who have had the teachings of experience, and who can testify of what they really know. Of this character is the article above, by W. B. Coryell, and the practicability and utility of the operation is satisfactorily shown by the following, recently received from Charles Hanford, one of the first settlers in this vicinity, but now of Alabama, Genesee county, in this State.

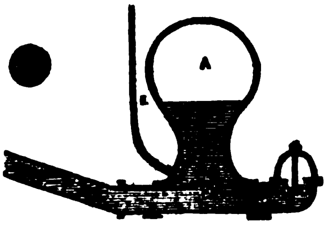
"I can recommend the *Hydraulic Ram* to farmers who want their springs brought to their houses and barn-yards. I had a good spring on one corner of my farm, with five feet fall, being 50 rods from my house; I now have it brought to my house and to my barn-yard, and thence to my fields. The pipe used is one and a half inch for the fall to the ram, and half-inch pipe for the conductor up to the house, which is 60 feet rise, making it convenient for a fish pond in my garden, and a fine privilege for a milk house — cold spring water to run around the milk pans and to keep butter cool in the summer — also for a bathing room. It has worked well since it was put down, which was last September. C. H.—*Alabama, N. Y.*

We think the above, from Mr. H., sufficient to satisfy all as to the practicability of the plan, and of its immense advantage. We shall therefore confine our remarks to a description of the machine and the mode of operation. Lest, however, any of our readers should think we are recommending a plan on too slight evidence, we would say that, were it necessary, we could give abundance of such facts from men who have these rams.

To assist in illustrating the subject, we introduce an engraving showing the Ram in operation. A is the spring, the water of which it is desirable to elevate to the barn, or house, or fountain. B, the pipe conveying water from the spring to the Hydraulic Ram, and from the spring to the ram there must of course be a fall. C is the ram. D, D, pipe conveying water to a trough for cattle, which might of course be carried in any other direction desired. E, pipe supplying water to a fountain. A fall of not less than eighteen inches at the spring, and a quantity of water not less than half a gallon per minute, are necessary to operate the ram; but the greater the fall and the quantity of water furnished, the greater will be the quantity of water elevated by the Ram. The ram and the pipes, when set up for use in a cold climate, should be placed some two or three feet below the surface of the ground, and so covered as to be secure from frost.

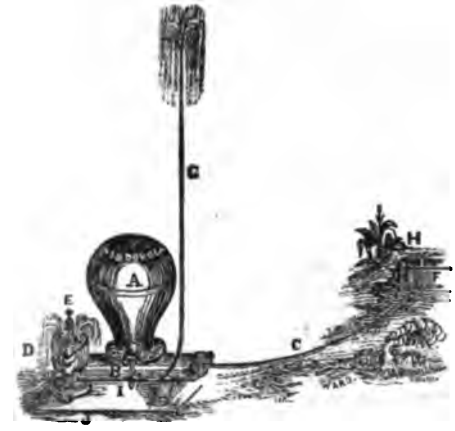
We think we could not better explain the philosophy of the Water Ram, than by quoting an article written by W. B. Embry, of the Albany Agricultural Warehouse, in the last volume of the Farmer, with the accompanying engraving. Mr. E. says:

"Although the principle upon which it acts is one of the most simple in nature, and notwithstanding the fact that it has been applied to the raising of water for more than 3000 years, a kind of mystery has hung about it; and the seeming absurdity of the idea that water can be made to elevate itself above its level; and to supply a constant and abundant stream at any desired elevation, without the liability to accidents and stoppages, has prevented inquiry into the construction of the Hydraulic Ram; and consequently it has remained comparatively unknown and, until within a few years, but little used.



"The annexed cut represents a vertical section of the Ram. A, the air chamber; B, the waste valve; C, valve opening into the air chamber; D, the feed or driving pipe; E, pipe to convey the water where it is desired. The pipe D should be 30 to 50 feet long, and from 1 to 2 inches calibre; the pipe E any length desired, and about half-inch calibre. Lead pipe is commonly used. The circular figure on the left represents the form of the waste valve. The waste valve is made to vibrate up and down thus: The water passes down the driving pipe D, and escapes at the waste valve B. Now, as any descending body increases in velocity and force every instant of its descent, the column of water descending in the driving pipe, quickly attains sufficient velocity and force to lift the waste valve; but the valve in rising instantly stops the passage, and the whole momentum of the water strikes against it and seeks relief, which is only found at the valve C, through which a quantity of water is forced into the air chamber, where it is confined by the closing of the valve. The momentum being thus expended, and the water at rest, the valve B drops by its own gravity, and is ready to start again. After repeated vibrations, the air chamber becomes partly filled with water, compressing within a small space the air, which, by its elasticity, re-acts upon the water, and forces it up the pipe E to any desired elevation or distance."

The following engraving gives a more distinct view of the ram, in operation.



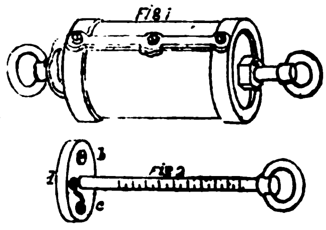
H, spring or brook. C, drive or supply pipe, from spring to ram. G, pipe conveying water to house or other point required for use. A, B, D, E, I, the Ram. J, the plank or other foundation to which the Ram is secured.

The COST must of course depend upon the distance the water is carried. Lead pipe, 1½ inch, can be procured for about 15 cts. a foot. The price of the Ram of a size fit for general use, is $25.

For the accompanying engravings we are indebted to W. & B. DOUGLAS, the manufacturers, through their agents at this place, RAPALJE & BRIGGS, of whom Rams can be procured, as also at most of the Agricultural Warehouses in the country.

EMERY'S CYLINDER DYNAMOMETER.

THIS instrument was invented the past season by H. L. EMERY, of Albany, N. Y., at great expense for experimenting, altering, &c., &c., and as now made and used, it is nearest the thing for its purpose yet introduced. It has been used at several trials of plows the past season, as well as in experimenting, and has given entire satisfaction to the parties interested. It has been exhibited at the New York State Fair at Syracuse, at the American Institute at New York, and at the Worcester Mechanics' Association at Worcester, Mass., and by each the inventor was awarded a silver medal, with the highest encomiums of their several committees. We cannot give a better description, than to copy that of a committee of seven of the best practical mechanics, machinists and manufacturers, of the Worcester County Mechanics' Association, in whose report they say that "no article of any importance has received a mere cursory glance, or guess, at its merits; but pains have been taken to test every article according to its claims; and we present not our own opinions alone, but with them the facts on which they are predicated."



CYLINDER DYNAMOMETER.

"It is intended to be used as a comparative test of the power required to overcome the resistance of bodies under draft, and more particularly that of plows.—The usual spring scale has many faults, the chief of which are its vibration, and absence of self-determination of the maximum of the force exerted. This invention remedies these faults. It consists of a strong iron cylinder about eight inches long and two and a half in diameter, into which a piston is ground steam tight, the piston rod passing through the stuffing box in the cylinder head, and receiving in its end the draft ring, a strap hook or ring at the other end of the cylinder, to serve as the attaching or connecting link.

"It will be seen that if the piston be sent back to the end of the cylinder, and the space filled with some non-elastic fluid that no force employed for draft purposes could draw the piston out, and if a small opening be made through the piston, so as to make a communication with both ends of the cylinder, the fluid will escape under the pressure and the piston be drawn out in a given time with a given force. This is the arrangement of the Dynamometer under consideration, and a more simple and correct instrument we have never seen; and we recommend a silver medal be awarded the inventor."

A similar report, giving it the reputation of being the best thing of its kind yet seen and examined, is found in each of the published transactions of the State Society and American Institute, for 1849.

Answers to Inquiries.

HORIZONTAL PLOWING.

If your your editorial duties, and those connected with the Patent Office, would allow you time to give us, during the year, full and practical information relative to "horizontal' plowing, as now practiced at the far South, or any other method which will better prevent the "washings" during our heavy summer showers, the information will be gladly and thankfully received by us in this neighborhood. J. B. Owens.—*West River, A. A. Co., Md.*

Horizontal plowing means, to keep the furrow so near on a level along a side hill, that the water shall not run in it and wash off the fine particles of light mold, loam, clay, and sand. It is mainly from these that the solvent elements of crops, both organic and inorganic, are derived. If the minute atoms in the surface soil are borne off in heavy rains, the fertility of the land is seriously impaired.

To meet extreme cases, horizontal ditches around hills, or along their sides, three or four rods apart, are also required at the South. These are usually twelve or fifteen inches deep and some twenty wide, and made with a plow and cleaned out with hoes. They are not horizontal, strictly speaking, but have a fall of one inch in twelve feet. Unless the water can escape by running off at one end of the ditch, it soon fills in a hard rain, breaks over at the lower side, and lets the whole current fall into the ditch below, which in turn gives way also, and a gully is soon formed, in light land, deep enough to hide a Pennsylvania six horse wagon and team.

The deeper land is plowed, the less liable it is to wash. Side hill plows should be used in plowing land much inclined to wash. In making side hill ditches, either a water or a spirit level is used to keep them on a true grade, although considerable experience enables one to locate a ditch by the eye alone. A fall of one foot in one hundred feet answers very well to give a gentle current to carry off water without damage.

STRIDING CATERPILLAR.

Messrs. Editors:—A few years since, an insect called the "*Striding Caterpillar*," made its appearance in our hop fields early in July. It is of a green color, one-eighth of an inch long, increasing to an inch at maturity. Its depredations have been increasing ever since, first preying upon the leaf until the plant is stripped, and then attacking the hop.

If you have discovered any means of checking the ravages of this destructive insect, you will confer a great benefit upon hop culture, and a number of your old subscribers, by inserting them in your next number. An old Subscriber.—*March*, 1850.

Will some reader give us more light in regard to this insect?

SALT.—THE LARGE WHITE GRUB.

Messrs. Eitors:—Two years ago I had a field of wheat almost entirely destroyed by the large white grub-worm, and I now have the same field in wheat again. The worms were still to be seen last fall, when the field was plowed Would salt sown on the wheat in the spring, be a preventive? If not, hat woul ? John Dickson.—*Sandyville, Ohio. March*, 1850.

Salt enough to kill the worms would be likely to injure the crop. A little salt, however, will benefit the crop; and perhaps it will bear enough to destroy, or drive the depredators deep into the earth. Try a few rods, and report the result.

A DILEMMA.

Messrs. Editors:—I find myself in a dilemma in relation to a quantity of straw which has been suffered to accumulate in my yard for a number of years, which, by the by, is well stocked with tare seed; and I should think by the appearance, that the pile has been made of about the whole straw produce of the farm for at least eight years.

Now, my trouble is not that there is so much of it, but I wish to know how I can get it into a suitable state for use in the quickest and cheapest manner. Can I put a quantity of stone lime at the bottom of the stack, apply water and slake it without danger of burning my barn? If I can not, please inform me how it can be done. Can you tell me of an article that will produce decomposition active enough to prevent the tare seed from vegetating? If so, please inform me through your next number, and I think it will be satisfactory to others as well as myself, as there are hundreds similarly situated. A Novice.—*Lima, N. Y., March*, 1850.

Place your heap of unslaked lime so far from your barn that if it sets fire to the mass of straw, it will burn nothing else; but if the mass of partly rotted straw be *wet*, as it should be, it will burn but little more than a snow bank. Oil of vitriol will kill the germs in seeds; but it is rather too expensive for your use. Heat generated by slaking lime, is the best means available. There is very little danger of setting a mass of wet straw on fire.

IRRIGATION AND SOILING.

Messrs. Editors:—For the information of myself and some others of your readers, I would like to inquire whether soiling for dairy purposes is practiced in this country, and to what extent? and whether cows under that treament would be healthy during our hot summer months? and what would be the difference in the quantity of milk to a cow running at large? and whether this system would, or would not, be the most economical one, where water can be had in sufficient quantity for enriching or improving our small farms in the interior of this State? Any information on the above subject, accurately given from actual experience, would be received with interest, so that a young farmer might know with some degree of certainty, the profit or loss. Lansingville.—*Lansing, N. Y., March*, 1850.

Irrigate your pastures and meadows in all cases where it can be done at a moderate expense. This need not prevent one from growing corn, clover, rye, barley, oats, or peas, for soiling purposes. Partly cure all green succulent plants before feeding them to cows, horses, mules, or oxen. This practice is increasing in both the Northern and Southern States, and will long continue to increase as its advantages are better known. Of course, a man may commit blunders at this business, as in every other branch of farm economy about which he knows but little.

VALUE OF GAS LIME.

Messrs. Editors:—Will you do me the favor of informing me of how much value for converting muck into manure, is the *gas lime*—lime used to purify gas. It is principally oyster shell lime that is used at this place, and can be bought at $3 per hundred bushels. Prof. Johnston says that it is not worth much; but that, if made into compost, it will not hurt the crops. I have not found anything from our own countrymen on the subject, or in your valuable journal. Please send me an account, if you can conveniently, and much oblige Chas. P. Cowles.—*Syracuse, March*, 1850.

If you have but a short distance to haul the lime, it will pay well to buy it at $3 per one 100 bushels, unless your soil abounds in lime already. In that case, you will but carry coal to New Castle. All depends on your land. A little may be gained from the gas.

Horticultural Department.

EDITED BY P. BARRY.

HINTS ON THE MANAGEMENT OF TREES.

The planting of trees will now be finished, in most parts of the country. Presuming that this has been well done — that the ground was well prepared, the roots and tops judiciously pruned, and due pains taken to place the tree in such a condition in its new situation as to give a reasonable hope of its success — planters will probably consider the work done, and leave the trees to themselves for the summer; but this will not do. Every tree that has been planted this spring or last fall, should be examined. The frosts may have drawn them out of the ground; the earth may be settled so as to leave the roots exposed; the wind may have blown them out of their upright position, and left a crevice around the base for the air to penetrate: the earth may have become baked and cracked; and so on. Under any or all of these circumstances, immediate attention is necessary.— The growing season has commenced, and it is highly necessary, if we wish trees to prosper, to put them in such a condition that they can make the best of it. If stakes be necessary, they should be provided at once, and the trees be carefully tied to them. In all orchard planting, when trees are exposed and exceed four feet in height, stakes or supports are essential. The ground should be frequently stirred to keep it loose and fine, and when it has settled away from the roots, it should be drawn carefully up to them. Mulching is a great safeguard in our dry climate; indeed, every tree should be kept mulched for the first year; that is, the ground should be covered about the tree, as far as the roots extend, and a foot beyond, with litter or manure, to the depth of several inches. It preserves the moisture of the soil, and an even temperature, that greatly modifies the scorching influence of our hot sun, and facilitate the growth of new roots. We speak from abundant experience on this subject, and might quote pages of instances of the good effects it has produced; beside, it is actually a saving of labor; because, without mulching, the ground about the trees, if we wish to see them live and grow, must be kept clean and mellow. Mulching prevents the necessity of this, as it keeps down weeds and prevents the possibility of the ground baking or cracking. Mulch your trees, then, by all means, and do it soon — do it at once. If a severe drouth should ensue, newly planted trees in dry soils may require watering. This will be easily ascertained by the flagging and languishing of the young shoots. In such cases, the mulching and a couple of inches of soil should be removed, and a liberal supply of water be furnished; a pailful or two to a young tree is little enough to do any good; indeed, it should be poured in slowly until the ground for some distance from the tree is thoroughly saturated, and will contain no more; then replace the earth and mulching, and that will in nearly all cases be sufficient to carry the tree out of danger from drouth.

We are thus particular on this point, because we hear so much said continually about trees dying in dry weather, when a little care of this sort would have saved them and insured their prosperity. It is really shameful that people should purchase good trees, take pains in preparing their ground and in planting, and then for the want of a little watching and care afterwards, let them die, and throw the blame upon the nurseryman, or the planter, or some one else who had nothing to do with the cause of their failure.

Another point should be noted in the case of newly planted trees. If circumstances connected with the weather, the soil, or the time of planting be unfavorable, you may have left too much of head or side branches on your trees, the growth of the top may not be seconded or aided by the roots sufficiently, and the tree will either stand still or flag and die. In such cases, the remedy, in addition to that already alluded to, will be *cutting back closer*, thus reducing the growing surface and lessing the demand upon the roots. We have often had to cut back closer than we wished, to make the tree start vigorously. Last season we planted some pear trees in a damaged state, apparently quite hopeless cases, all dried and shriveled up. Some we pruned every branch off the stem, leaving only one eye at the base of each, to make a new branch. Others we cut stem and all off within a foot of the ground. Nearly all lived; but while the former made but an inch or two of growth of young branches, the latter threw up numerous strong branches from a foot to two feet in length, and in the autumn were much the handsomest and best trees — better rooted, and every way superior.

It is difficult to persuade our impatient planters into a proper system of reducing the heads of their trees. They will search the country over for *large* trees — "the larger the better"— and then they will not remove an inch of their wood; that would be directly opposed to their principle—their motto, "the larger the better." Experience, however, will remedy this; but it will be dearly bought in many cases. The experienced cultivator, when he goes to purchase trees, or select them for planting, will endeavor to procure first rate sorts; and instead of looking merely at the height of the trees, will see that they have *thrifty, stout bodies, and good roots*; the mere matter of height is of no importance to him, if everything else be right. The inexperienced, as a general thing, will cast his eye around for the *tallest* tree, and have that if he can, regarding all the other considerations of minor importance. What a mistake he makes!

The numerous and frequent attacks of insects require continual watching too, during all the growing season. As soon as the leaves are expanded, they are liable to suffer from leaf-rollers, aphis, slugs, caterpillars, and a multitude of leaf-devouring bugs and beetles. Everything that affects the foliage injuriously, should be carefully guarded against. The horticulturist who wishes to be successful, must wage an unceasing warfare against insects.

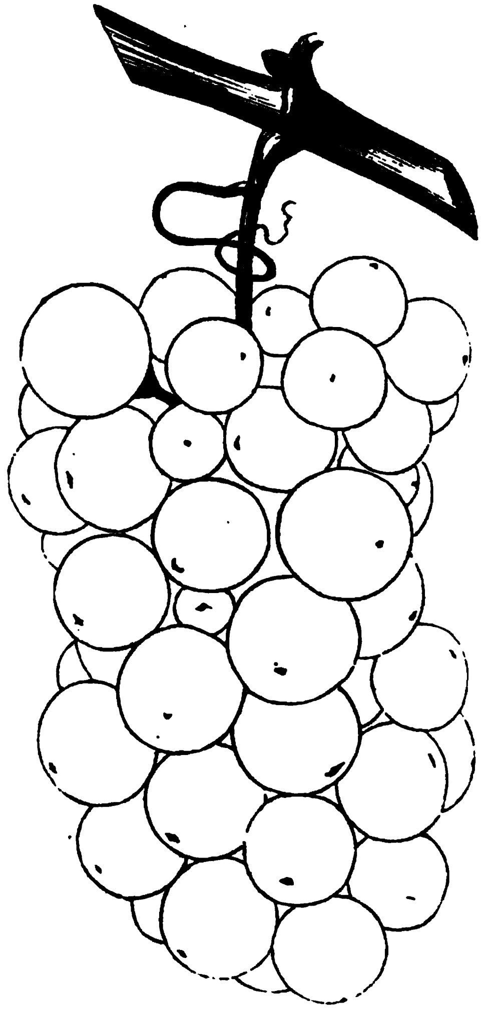
We ought to have remarked, while treating of mulching, that it may be very advantageously applied to trees of any age or size, and particularly to pear trees. All dwarf trees should be kept mulched; the roots of the stocks they are usually worked upon are small, fibrous, and near the surface, and consequently more easily affected by external circumstances.—Mulching is therefore highly advantageous to them, of whatever age, and especially in dry soils. Dwarf bearing trees are greatly benefitted by an occasional application of liquid manure; it will aid greatly in keeping up and renewing their vigor, and will improve the size, beauty, and flavor of their fruit. Without such care as this, dwarf trees are apt to exhaust themselves by their excessive bearing.

THE DIANA GRAPE.

The fact that foreign varieties of the Grape can not be successfully cultivated in the open air in our northern States, to any considerable extent, renders the acquisition of a new native sort of excellence a most important matter. At present the *Isabella*, *Catawba*, and *Clinton*, are the only sorts that can be relied upon for ordinary culture, and the Catawba requires a very favorable season to ripen, in a large portion of the country. The best of these too, in flavor, are quite below the delicious foreign sorts, and require great amelioration to make them what a grape ought to be.

This new variety, the *Diana*, from all accounts, is a great improvement, both in flavor and early ripening. We saw some specimens exhibited at the Congress of Fruit Growers last autumn, and in appearance they struck us as being very similar to, though not so large as the *Catawba*. We trust that further experience will prove it to be all that is claimed for it; and if so, it must soon occupy a place in every garden. We give the following figure and account of it from Hovey's Magazine:

> The Diana, when first exhibited, was shown for the purpose of ascertaining the name of the variety; for although Mrs. Crehore raised the vine from seed, Squire Seaver, of Roxbury, "had no doubt it was the Catawba," and she was naturally desirous of ascertaining whether it was in reality that variety; and we well remember that some of the gentlemen who first saw it, remarked, that though it was ripe so early as the 23d of September, it was doubtful whether it was not the Catawba, only grown in some warm and sheltered locality. Its great resemblance to the Catawba favored this impression so much, that after an inspection of the original vine, when in fruit, the succeeding year, some of our amateur cultivators were convinced it was only that variety.
>
> Mrs. Crehore, from the high opinion we had expressed of the variety, and the desire to possess it, kindly sent us a few of the cuttings in the fall of 1843. From them we raised four or five plants, in pots, in the summer of 1844. But from the idea entertained by many, that it was only the Catawba, we neglected our vines. Two of them were turned out into the ground in the spring of 1846, and they did not again attract any attention till the fall of 1848, when, passing the vine after the leaves had partly fallen, we discovered a few straggling clusters of grapes. Naturally curious to know whether the variety was as fine as we originally esteemed it, we tasted some of the berries, and, to our great surprise, we found them perfectly delicious, far excelling the Catawba. We then regretted that we should not have earlier ascertained, and made known, its great merits. Last fall we had a crop of fine large clusters, ripe fully a week before the Isabella, and so superior to that variety that they obtained the prize of the Massachusetts Horticultural Society, as the finest native grape.
>
> Vine vigorous, making rather slender wood when young; but growing more rapidly after it has attained age. Wood light brown, rather long-jointed. Leaves similar to the Catawba, without lobes. Bunch medium size, about four inches long, without shoulders. Berries medium size, round, closely set, forming a compact cluster, of a delicate pale red color, with a greyish bloom, not so dark as the Catawba. Flesh, with scarcely any pulp, juicy, rich, and vinous, with a high, delicious flavor. Seeds, generally two, rather small. Ripe from a week to ten days before the Isabella. It is a most abundant bearer, and has less of the taste peculiar to our native grape, than any other variety. It also possesses a peculiarity which we have not noticed in other sorts, as early as the first of September, when the berries first change to a grayish tinge, they are quite sweet, and agreeable to the taste, but they do not acquire the high flavor which constitutes its great excellence until they assume their full color, when it is one of the handsomest grapes we have ever seen.



DIANA GRAPE.

We have omitted, in Mr. Hovey's account, a letter from Mr. Crehore, giving a history of its origin. On this point it may be proper to remark that it was produced from seeds sown in 1832, by Mrs. Crehore of Milton. It first bore in 1838, and was exhibited before the Massachusetts Hort. Society in 1843.

S. H. Colton of Worcester, Mass., says in last month's Cultivator, that he and many others have succeeded badly in raising this grape from cuttings, owing, he remarks, probably to the slenderness of its wood.

WEEPING TREE ROSES.

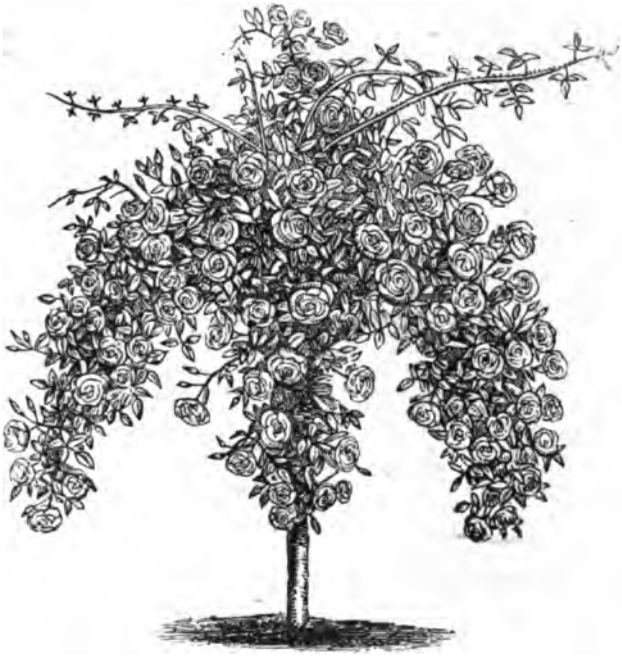
In how many ways the Rose is capable of contributing to garden embellishment! We can have *Dwarf Roses* in clumps and masses on the lawn or border, covering the ground as completely as would a mass of verbenas or heliotropes; then we can have *Pillar Roses*, four to ten feet high—actually pillars of roses, as perfect as art could frame and weave them; then again we have *Climbing Roses*, covering walls and arbors, or spreading and mingling with the branches and foliage of trees; next we have *Tree Roses*—miniature trees, for garden avenues and to mingle with trees and shrubs for the decoration of lawns and shrubberies. In all these forms the Rose is susceptible of producing the most pleasing effect. As the culture of the Rose progresses, these modes will continue to be improved, and new ones, still more striking and effective, suggested; for Rose growers are not only taxing their genius in producing novelties in the flowers themselves, but in the forms and combinations of culture and training. The latest, and as it appears to us, one of the most pleasing novelties in the latter respect, is the production of *Tree Weeping Roses*.

Imagine a miniature tree, some six feet in height, with a spreading pendulous head measuring as much in diameter, covered with such beautiful roses as our Queen of the Prairies! We saw nothing abroad, connected with rose culture, so interesting as Mr. Rivers' specimens of these Weeping Roses. This gentleman is noted all the world over as a most successful rose grower; and he has been one of the first to illustrate and draw attention to this matter. We therefore copy from Beck's Florist the following article from his pen, which we are sure will be interesting to all our readers who are interested in the culture of the Rose.

Standard *Climbing* Roses!"—an odd assemblage of terms, and yet I know not what else to call them: "Weeping Roses" is scarcely applicable, for they are not all strictly pendulous. How diversified are the purposes to which the beautiful Rose is applied! Have we an unsightly wall, it may be hidden by Climbing Roses; an ornamental verandah to embellish, what is so beautiful as some of the Climbing Noisette Roses? a wilderness to ornament, nothing to equal some of the varieties of Sempervirens and Ayrshire Roses, suffered to grow as nature dictates; a highly dressed lawn to finish, what can be more beautiful than clumps of Bourbon and other Autumnal Roses?—but of this more anon. Your pages will, I trust, often derive additional interest from articles on the Rose and its culture; my business is now with those rustic beauties named at the head of this article; at present they are too little known, but I hope to make them more so.

Some six years since, having some rose-stocks five or six feet high, and stout as broom-handles, I was induced to try what effect some of the beautiful varieties of Rosa Sempervirens would have if budded on them, as I had some latent idea that they would form very graceful pendulous trees; I accordingly selected from that family a few of its most interesting varieties. These trees are, in the blooming season, pictures of beauty; not a shoot has ever been touched by the pruning-knife; there is consequently no formality; their beauty consists in their gracefulness and rusticity, which is quite refreshing in contrast to the closely pruned heads of the finer varieties of Standard Roses.

The most interesting sorts in the above named group, for standards, are the following:—Banksiæflora, with very double flowers, pure white, the center of each bloom pale yellow or straw-color. Donna Maria, flowers comparatively large, very double, and of the purest white. Felicite Perpetuelle, with flowers of a creamy white, tinted with pink on the outside: it really is *perfect* enjoyment to see this Rose, in a balmy morning in June, covered with its flowery gems more numerous than its leaves. Myrianthes, with its abundance of flowers of the most delicate pink, is equally worthy of a place on the lawn. Princesse Louise is also a charming variety, with flowers nearly of the same color as the preceding, but larger, and more cupped. Princesse Marie is nearly the deepest in color of this elegant group; its foliage is also darker, and its habit more robust than some others: it soon forms a most beautiful standard. In fine contrast is Rampant, with its flowers of pearly white: this lovely variety is most slender and graceful in its habit, and continues a long time in bloom; it also often gives a second crop of flowers in autumn. No one can tell how beautiful all these roses are as standards; they are nearly evergreen, and every season are they covered with their peculiarly neat and very double flowers; and in two or three years their pendulous branches, waving with every breeze, reach the ground. The lover of Roses may sit under the shade of a Rose-*tree*, and luxuriate in the contemplation of the varied beauties of nature assisted by art.



WEEPING TREE ROSE.

It will be seen that nearly all the foregoing are remarkable for the *delicacy* of their tints: some one perhaps will exclaim, "There is not enough variation in color; give us more color!" Well, then, let us turn to the most gorgeous of Roses.

The Rose Amadis, or Crimson Boursault, as a Standard Rose, is quite unrivalled; it is also one of the first to gladden us in "the merry month of June;" and when cultivated as standards in rich soils, not content with giving its brilliant crimson flowers (perhaps the most brilliant of Roses) in the utmost profusion, it continues to bloom at intervals nearly all the summer and autumn; but in June its branches are weighed to the ground with their splendid burden, arresting the attention of the most indifferent. I am not writing of what *will* or *may* be; for some trees, now from four to six years old, growing here, deserve more than my pen can convey. Their stems are eight inches in girth, and their heads spread over a space ten feet in diameter. How magnificent would be an avenue of standards of this Rose!

The Boursault Gracilis, with flowers of a bright pink, cupped, and beautifully formed, is equally eligible as a tall standard; its branches are thorny, and more rigid than those of the preceding; it comes into bloom a few days after it, and soon forms a fine spreading tree. Boursault Inermis has flowers of a rather deep and bright red; this has the same luxuriant growth, and, like the above, will soon make a tree of large size.

To make a collection of Standard Climbing Roses complete, we must enlist a few of the Ayrshire Roses, for a reason which I shall hereafter give; and among these, Bennet's Seedling, or Rosa Thoresbyana, which covers itself with its very double flowers of the purest white, deserves a place. The Dundee Rambler also is a most robust-growing and beautiful variety; the outer petals of its flowers are often tinted with pink. Ruga, not quite so gracefully pendulous as some above enumerated, is exceedingly pretty, with its delicate flesh-colored blossoms, which are slightly fragrant; and Splendens, with its large globular flowers of creamy white, is remarkably and elegantly so; its branches have so much grace, waving with every breeze, that the eye is at once attracted. These few varieties I have described, bloom in succession nearly as follows:—first, the Crimson Boursault, and then the Boursault Gracilis and Boursault Inermis; Bennet's Seedling and the other Ayrshires trip merrily along, scarcely in the rear; and then our more steady and enduring friends, the varieties of Rosa Sempervirens, with their slowly fading flowers and never fading leaves.

If Standard Climbing Roses are purchased, supposing they are planted in December, they should be pruned in the February following, *i. e.* on being transplanted they must always be pruned. This pruning should be tolerably severe, each shoot shortened to within six or eight buds; the tree will then, the first season, form the foundation of a well proportioned head: no more pruning will be required. I have just stepped out to look at my standards, and find that some dead shoots in the center of some of my trees, hidden by the leaves in summer, may now be removed: and that is all. How pleasant it is to have Standard Roses requiring no pruning! for it really goes home to the heart of a Rose-lover to have to shear off, for the future welfare of the tree, all the finest and most luxuriant branches, which, as they fall to the ground under the knife of the operator, seem to lament their hard fate in being thus "*cut off*" only because they are too full of health and vigor.

Those who can procure their own stocks should select them perfectly straight, and none of them of less size than a gun-barrel, as much stouter as possible; their height may be from four to six feet,—if the situation they are to be planted in is exposed to winds, the former height is preferable; the first summer after planting they may be budded; three shoots, if possible, should be left for this purpose; the following spring they will "break" with much vigor. As soon as the shoot from each bud is six inches long, pinch off its top; laterals will be soon produced; these, if your three buds are successful, will not require further pinching; but if you have saved only one or two buds, you must pinch till you have enough laterals to form a well furnished head. Then all is finished, and you have nothing but enjoyment to look forward to; no pruning cares to disturb your equanimity and prick your fingers in winter, or pinching and disbudding with the same risk in summer.

The annexed cut, from PAUL'S Rose Garden, conveys a good idea of one of the Weeping Roses. Our double prairie roses, *Queen of the Prairies*, *Baltimore Belle*, *Perpetual Pink*, and all the others, are the very best for this purpose, and our native sweet briar, to be found in all parts of the country, an excellent stock, strong and hardy. Here we have at hand all the materials for the production, at little cost, of these charming trees. Who will neglect to cultivate them, that has a rod of ground to embellish?

Mr. RIVERS treats so fully of the details of culture, that not a word more on that point need be added.

* * *

ANSWERS TO CORRESPONDENTS.—J. W., *Ulysses*. Your thorn seeds will vegetate well the second year. It is better to put in a "rot heap" one year before sowing. It is a bad practice to cause the buds of fruit trees to start and grow the same year they are inserted. We quite agree with you in cautioning beginners against it.

FLOWER GARDENING.

THIS month (May,) is the time for giving the finishing touch to the flower gardens and borders, by turning out *Verbenas*, *Monthly Roses*, *Heliotropes*, *Petunias*, *Phloxes*, *Salvias*, and all such plants as have been grown in pots for this purpose. Have the ground in good order—*rich, mellow, and deep.* On a cloudy day, turn them out without breaking the balls of earth in which they grow. If the weather is warm and dry, water and shade them for a day or two. *Dahlias* should be planted about the end of the month. Strong young plants in pots are much better than old roots. Turn them carefully out of the pots, on a moist, cloudy day, if possible, and put a stake four or five feet high to each, that the stems may be tied to at once; they are succulent and easily broken by the wind. Plant none but first rate sorts, as a poor Dahlia is the meanest thing imaginable, and a really good one surpasses all other flowers of the garden, in richness and beauty. Box edging may be set all the month. This should be done neatly. When box is newly set, it should not show more than two or three inches of a thin, even, connected line above the ground. Some people plant it like trees, or hedge plants, leaving spaces between each, making a most ridiculous thing of it.

* * *

EVERGREENS may be planted all this month. There should be no house in the country, without evergreens. They are in every season both useful and beautiful, for the shade, shelter, and variety they give. The White Pine, Balsam Fir, Hemlock, Red and White Spruce, and Red and White Cedar, are all native trees and easily obtained. The Norway Spruce, Silver Fir, Scotch Fir, Austrian Fir, besides the new and rare species, such as the Deodar, Auracaria, Cedar of Lebanon, Lofty and Bhotan Pine, Smith's or Himalayan Spruce, and a multitude of others, can be had at the nurseries. Every man in the country who has an acre or two of ground about his house, to spare, should make an arboretum of it. By planting a few trees every year, at leisure times, he might soon have a collection equal to that of some of the English noblemen, and at a very trifling expenditure. See what a variety our own forests produce! Let us think and do a little for the beautiful, and not all and always for the useful.

* * *

THE SEASON.—Up to this time (April 15th) we have had unusually cold weather for the season. Vegetation is no more forward now than it was in February last, generally speaking. The fruit buds, however, look well, and the probability is that when the weather does come warm, we shall have no material drawbacks in the way of unseasonable cold, as last season.

* * *

THE NEW HAMPSHIRE FESTIVAL.—A very kind friend at Boston has favored us with a copy of the proceedings of this great festival, printed and bound in a style equal to our best annuals. We shall give an interesting extract from this work in our next.

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SEVERAL communications on hand, but crowded out of this number. A. W., Marcellus, N. Y.; A. STONE, of Hinmanville; G. W., Victor; S. TRASK, and others, will appear next month.

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WE learn that the proceedings of the Pomological Congress are in press, at Albany. It is a great pity their publication has been so long delayed.

Ladies' Department.

FLOWERS, CORRESPONDENCE, &c.

We are gratified that our efforts to interest and instruct the readers of this department have not been in vain. The notes we are receiving from our fair readers, thanking us for the information already given, and asking still more, is a grateful reward for any labor we may have bestowed. During the spring we shall treat of gardens and flowers, but we shall not forget the more responsible duties of life; and if we have our own way of teaching the *useful* in connection with the *beautiful*, we flatter ourselves that our plan is not a *bad* one. That some of our friends think so too, the following, and other communications we have in our possession, is proof:

Messrs. Editors:—If you will be so kind as to send me the remaining *Ladies' Rake*, I will try to use it with "zeal" and "intelligence." I thank you, in the name of my sex, for the "Ladies' Department" of your useful and interesting paper: and I earnestly hope your valuable suggestions, as regards the choice and culture of flowers, will be continued from time to time, as the sweet season progresses. A Farmer's Daughter.—*Rosedale, April*, 1850.

Whenever we stray away from home, and visit the country, villages, or cities, we notice the gardens more than people or houses, and we involuntarily have an impression made upon our mind, of the intelligence and refinement of the people by the appearance of the gardens. We have heard some remark that, whenever they heard music in a house, that house became associated in their minds with peace and refinement, cultivated taste, and a happy home. We take our key from the garden.

Flower Gardens are generally too "fixed up"—too "fussy," as the ladies sometimes say. Straight, narrow paths, bordered with stones, or shells, or box, and even bones,—small beds in the form of triangles, diamonds, hearts, &c., are too common, but never pleasing. You have often stood on the bank of some beautiful stream, and watched it, delighted—almost enchanted—as it wound its graceful meandering course through the valley, lost to your view at some points by intervening trees, and again appearing in the distance like a bright silver thread. The bank of that river is fringed with trees; but they stand not at regular distances, like sentinels, but here and there a group, connected perhaps by a few scattering trees. Let this be your model. Lay out your walks gracefully winding as the river; plant your flowers and shrubs and trees in little groups. Thus imitate nature, and the effect will be pleasing.

In our last we recommended Petunias, Verbenas, Dwarf Phloxes, Perpetual Roses, Scarlet Geraniums, &c., for planting in masses or groups; but we would not omit the Dahlias, as no flower garden can dispense with them—at least a dozen or two, to cheer and brighten the fading autumn, by their showy, brilliant, and perfect flowers. All these plants that we have alluded to, may be bought (excepting the Roses and Dahlias) at a dollar or two per dozen, in pots, at the nurseries, ready for turning out, and will bloom in a week or two after planting.

But, above all, the ground should at once be put in readiness by trenching (deep digging) and manuring, for without deep, rich, and mellow ground, success cannot be expected.

It appears from the following, that we have not only attracted attention to the cultivation of flowers, but even to the more useful and not less *exciting*:

Messrs. Editors:—As you are fond of gossiping with the ladies, permit me to have a short gossip with you. I had the pleasure, not long since, of perusing an article in your March number, addressed to the ladies, on the delights of out-door exercise, and have been induced, partly by that and partly by my own inclination, to throw aside my books and my embroidery, and turn my attention to the onion beds. Yes, Messrs. Editors, I expect shortly to equal the "fair onion weeders of Wethersfield" in their sublime art, and though I may not always have the "smile on my lip," I shall probably have the "tear in my eye." But I am only a beginner; can not you give me some information in your next, as to the best method of cultivation? I intend to cultivate the ornamental, however, as well as the useful, (by the way, as my onion beds are in a conspicuous situation, how do you think a border of phloxes would look around them?) and, Messrs. Editors, I have fallen in love with the *Ladies' Floral Rake*, which you say you are willing to give to "any lady who will make good use of it." Can you doubt, after what I have said, that I am *the one?* I know your gallantry will not permit you to refuse such a request from a lady; therefore I shall expect the rake will arrive by the next express, as I shall soon want to use it, and I find it perfectly impossible to use a heavy garden rake to advantage among the flowers. E. C. D.—*Brook's Grove, March*, 1850.

We believe in a place for every thing, and we think an onion bed is a poor place for phloxes. We really had no idea of causing the unbidden tear to flow, yet we think it far more sensible to weep over a bed of the *Allium cepa* than at the misfortunes of an imaginary hero or heroine.

……

Messrs. Editors:—In your March "gossip with the ladies," I *practically* admire your ideas of female accomplishments, albeit *I* can not *saddle* the horse. You also proffer to any of your *fair* readers, "who will make good use of it," that neat *Ladies' Floral Rake* you speak of. Now, those ladies who practice your precepts, will hardly fail to be "slightly tinged with brown," and thereby must be excluded from the prize.

Pa wished to say, in regard to pruning peach trees, that his experience of several years, with a large orchard, has taught him that early pruning will cause the branch to "die back"—that the trees should not be pruned until the bud is near blooming. Lucretia.

If "Lucretia" will send her address by mail, we will send her the rake, even if she be "slightly tinged with brown." You are quite right in regard to pruning the peach. We hope that "Lucretia" will send us some of her own experience in floriculture, during the season.

……

Messrs. Editors:—I can see no part of your valuable paper that ought to be dispensed with, not even the "Ladies' Department," particularly when supplied with such articles as the March number; for the cases are too rare in which it would not apply with *truth*. Yet, if farmers' wives would contribute (not their grievances) some of their *real*, *practical* knowledge, would it not do good in more ways then one? perhaps beget an interest in the good, orderly house-keeper, who sometimes complains that her husband takes so many papers, it keeps her busy arranging them, or that it takes all they can earn to pay for them.

The following recipe for making *Apple Dumplings* is at your disposal:—Fill a four quart pan half full of sour apples, pared and sliced; add a quart or sufficient water to cook them; put several bits of butter, about the size of a walnut, around the edge of the pan. For the crust, take a small sized tea-cupful of sour cream, two of sour milk, two teaspoonfuls of pulverized saleratus rubbed into the flour; add the wetting and a little salt. Roll it to fit the pan, and press it firmly all around; cover tight with another pan; set it upon the stove, and cook briskly three quarters of an hour; then remove the cover and try with a fork to see if done; if so, run a knife around the edge of the crust and turn the whole upon a platter, and you have a *dumpling proper*. Serve hot, with good butter and new maple syrup.

Preparation for Boots.—Place an iron vessel upon the stove, put in two or three pounds of tallow, and as much India rubber as the half of an old shoe, keep it very hot two or three hours, then add a little lampblack. When sufficiently cool apply freely. A Farmer's Wife.

Editor's Table.

Premiums for Subscribers to the Farmer.—Below we give the Prizes awarded for subscribers obtained to the Farmer up to the 15th of April. In addition to the names here given, many have procured and forwarded us large lists, who are not only entitled to our warmest thanks, but, considering the places in which they reside and the labor bestowed, are perhaps as fully entitled to premiums as any of the successful competitors. To such we have thus far endeavored to be as liberal as the low price of our paper would admit of; and we are gratified to state that while we have not heard one word of complaint from any, many have returned us sincere and *substantial* thanks, and even have expressed the opinion that we were doing more for them than their labors merited. Many of such friends will yet hear from us. Before this number reaches our subscribers, we shall have returned from New York and Boston with a complete assortment of Agricultural Books, and shall be able to attend to all orders from our friends. If any entitled to premiums wish any particular books, they will please send us word immediately, as also the manner in which they wish them sent, as otherwise we shall use our judgement in the selection of books, and also the best mode of conveyance. One object we have in view is the circulation of good Agricultural Books; but if particularly desired, we will substitute Agricultural Implements in payment of any of the premiums. In our next offer of premiums we shall not only offer more, but endeavor to make them so general that every one may "reap the reward of his labors.

1st. To Joseph Watson, Clyde, N. Y., an Agricultural Library worth $30, put up in a handsome case, for 360 subscribers.

2d. To E. C. Bliss, Westfield, N. Y., an Agricultural Library worth $25, with case, for 316 subscribers.

3d. E. Howland, Mechanicsville, N. Y., an Agricultural Library worth $20, with case, for 232 subscribers.

4th. J. H. Stanley, Le Roy, N. Y., Transactions of N.Y. State Agricultural Society from 1843 to 1850 inclusive, for 100 subscribers.

5th. Orrin Bishop, Dundee, N. Y., $10 in Agricultural Books, for 90 subscribers.

6th. John Davis, Birmingham, Michigan, $5 in Agricultural Books, for 85 subscribers.

John L. Dolsen, Chatham, C. W.; Moses Eames, Rutland, N. Y.; Allen Hale, East Smithfield, Pa.; R. A. Woodcock, Oxford, C. W.; and J. W. Reed, Lockport, N. Y., each five bound volumes of Farmer.

To avoid any dissatisfaction on the part of our competitors, we award O. B. Scott, of Woodville, Jeff. Co., N. Y., $10 in Agricultural Books, (a special premium,) for 96 subscribers. Mr. Scott has labored hard and faithfully, but we fear might be considered by some of our competitors a *traveling* rather than a *local* agent. This is the premium to which he would have been entitled, so that neither Mr. S. nor any of our friends will have cause to complain.

The American Farmer.—This is the title of a very neat monthly, of 32 pages, printed at Harrisburgh, Pa., in the German language. The publisher says:—

"Its object is to serve as a medium of mutual instruction, as a register of all useful improvements in practical farming, and as an advocate of the rights and interests of that large and respectable class of the agricultural community who, being more familiar with the German language, are but distantly reached by the powerful influences of the English agricultural press. The usefulness and importance of such a paper must be obvious to all who are aware of the extent to which the German language is used by the farming population of the middle states especially: and it being the only agricultural journal in the United States now published in the German language, it is confidently expected that the friends of this main stay of all national prosperity, will kindly exert their influence in widening the circulation of the 'Farmer.'"

It bids fair to be a valuable auxiliary in the work of improvement, and we earnestly hope that it will meet with success. We may occasionally give translations. J. M. Beck, publisher. $1 per year, in advance.

Large Crop of Beets.—D. Warner, one of our subscribers at Cornwall, Vt., raised last season 585 bushels of the White Sugar beet on one-half acre. He took the first premium offered by the Addison County Society.

Agricultural Implements in Rochester.—We think we may safely say there is no place west of Albany where as good an assortment of all the valuable agricultural implements and machines can be found, as at Rochester. Messrs. Rapalje & Briggs have an extensive establishment on Buffalo street, literally crammed full, containing every thing that can be asked for, from an apple-pearer to a threshing machine. James P. Fogg, of the Seed Store No. 12 Front street, as will be seen by his advertisement, has leased the adjoining store, (No. 14,) where he intends to keep a good stock of Farming Tools. Mr. F. has been engaged in the Seed business, in this place, for seven or eight years, and his success is evidence that his manner of doing business is satisfactory to his customers.

We are at all times ready to aid our friends in purchasing and forwarding any implements they may need, or in giving any information in our power.

Trial of Plows under the direction of the State Agricultural Society.—The Executive Committee have appointed a trial of plows, to take place the second week in June, at Albany. The object is to ascertain the *best plows* now made for the different kinds of work, a matter of the utmost importance to the farmer. The very efficient Secretary has issued a circular in which he says: "The only object of the Executive Committee is, to ascertain, if practicable, the best plows for *stiff soils*, for *sandy soils*, for *fallows on old land; best sub-soil plow; best side-hill plow.*" The competition is open to *all*, and we hope *all* will feel interested in making it alike interesting and profitable. For rules regulating the trial, &c., see premium list.

To Destroy Burdock.—We are requested to inform all farmers who are troubled with burdock, that this is the time to destroy them. As they are making their appearance above ground, cut just below the crown with a spade, and the work is done.

Monroe County Agricultural Society.—A meeting of this Society will be held at the office of the Genesee Farmer, on Tuesday, the 7th day of May next, to prepare a list of premiums, the appointment of Town Committees, and the selection of Judges for the ensuing year. A full attendance is requested. Joseph Alleyn, Sec'y.

Rochester, April 18, 1850.

Doct. A. A. Morgan, Dentist,

WOULD respectfully announce to his friends and former patrons, and to the citizens of the surrounding country, that he can be found at the old stand of Beers & Morgan, corner of North St. Paul and Main streets, every ready to attend to their calls in that style so universally admired. He would also solicit the continuance of that patronage so liberally bestowed in years past.

He will, on the shortest notice, furnish plates, from one to an entire set, on fine gold, and fill decayed natural teeth, so as to preserve them during life.

To the Profession he would say, he has just received the largest assortment of ALCOCK'S IMPROVED MINERAL TEETH ever opened in this city, and is now prepared to fill orders from 1,000 to 30,000, on short notice, and at New York prices. He can sell them in small lots 30 per cent. less than they can be bought elsewhere in the city.

Also, constantly on hand, an article of GOLD and TIN FOIL, beaten expressly for him, by a Philadelphia House, which can not be surpassed in quality.

The latest improved styles of Forceps and Dental Instruments, also found at his rooms.

Remember the Dental Emporium, corner of North St. Paul and Main streets. ANSEL A. MORGAN.

Rochester, May 1, 1850. [5-tf]

Rare Evergreen Trees.

WE have on hand a fine stock of
Deodar, or *Indian Cedar;*
Auracaria, or *Chili Pine;*
Cedar of Lebanon;
Abies Morinda, or *Himalayan Spruce;*
Pinus excelsa, or *Lofty Pine;*
Pinus Cembra, or *Cembran Pine;*
Cryptomeria Japonica;
Taxodium Sempervirens;
and many other species, all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March, 1850.

The Thorough Bred Blood Horse Sir Henry

WILL continue to stand at the stable of the subscriber, one and a half miles northwest of Churchville, in the town of Riga, Monroe county. Terms $10 to insure a foal. Gentlemen from a distance will find good pastures, and will receive such attention as they desire, and on the most reasonable terms.

Sir Henry is of a beautiful unfading bay color, stands 16 hands and 1 inch high without shoes, and is a sure foal getter. He is remarkable for his vigor of constitution, his developments of bone and muscle, and his intelligent, kind, and docile disposition. He is compact and short legged for a thorough bred Blood horse; yet of a rangey and majestic figure. His action is graceful, but at the same time proud and commanding. But what is perhaps of more importance, he is descended through all the generations that are recorded in the English turf register. There is no horse living that can boast of a more illustrious pedigree, his immediate ancestors, who are of unparalleled beauty and elegance of figure. The superiority and value of this horse is abundantly proved by the following facts:—In 1844. Sir Henry received the first premium for Blood horses at the Onondaga County Fair; in September, 1845, he took the second premium for Blood horses at the great State Fair at Utica, (see the report of the committee on Blood horses, in the Transactions of the N. Y. State Ag. Society for 1845, volume 6;) and the same season the first premium at the Orleans County Fair; and in April, 1849, was brought into this county, and in the September following received the first premium at the Monroe County Agricultural Fair.

The proprietor has, at great expense, brought this horse into this county, hoping to improve its revenue by adding a valuable stock of horses for market, and supplying the harness of the country with thorough and pure blood of enduring and beautiful horses.

All accidents at the risk of the owners. Owners parting with mares before foaling time, without the consent of the subscriber, will be charged the insurance; and all mares not regularly returned to the horse once a week during the season, will be charged the insurance if not with foal.

May 1, 1850. [5-2t*] BILLING RICHMOND, Jr.

Young Morgan Tiger and Samson Chief

WILL be kept the ensuing season as follows:—On Mondays, Tuesdays, Wednesdays, and Thursdays, at the stable of the subscriber, two miles southeast of Clyde; on Fridays and Saturdays, at the stable of J. Landon, in Lyons.

PEDIGREE—Young Morgan Tiger was sired by the celebrated horse Morgan Tiger, formerly owned by Dr. Wm. May of Palmyra. Samson Chief was sired by the imported Samson, imported by John Robinson of Palmyra

TERMS—Eight dollars to insure a foal. All persons parting with their mares before foaling time will be held responsible for the insurance money Good pasture will be furnished for mares from a distance at two shillings and six pence per week. All escapes and accidents at the risk of the owner

Breeders of good horses are invited to call and see them and their stock. ☞ Young Morgan is a bright bay, coming five years old, sixteen hands high, and well proportioned. He was awarded the first premium at the Wayne County Fair held at Rose Valley in October, 1849. Samson was awarded the first premium as being the best three years old stallion exhibited, at the same place and time. ISAAC M. GILLETT.

April 1, 1850. [4-2t*]

The Celebrated Horse Cub Baccus,

THE best blooded and most perfect horse in this part of Michigan, will stand for the use of mares, during the present season, at Bellevue, Marshall, and Penfield.

Cub Baccus is ten years old this spring, was sired by the well known horse Baccus; his dam was sired by the old Cub Messenger, who was sired by the imported horse Golden Farmer.

Farmers wishing to breed from a good horse, will please examine the Baccus and his stock, which is superior to that of any other horse in this part of Michigan.

Terms—$2 the leap, $4 the season, and $6 to insure.

JOHN F. HINMAN.

Bellevue, Eaton co., Mich., May 1, 1850 [5-2t*]

The Morgan Horse Major Gifford

WILL stand the ensuing season, on Mondays, Tuesdays, and Wednesdays, at the stable of E. W. Sheldon, Sennett; on Thursdays and Fridays at the stable of S B. Rowe, Camillus; and on Saturdays at the stable of John C. Munro, Bellisle.

Major Gifford is seven years old this spring; his color is a beautiful chestnut. He was sired by the Gifford Morgan, his dam a pure Morgan. Breeders of good horses are invited to call and see him.

TERMS—Ten dollars to insure Pasturage furnished. Accidents and escapes at the risk of the owners.

April 1, 1850. [4-3t*] MASON & CO.

Morgan Horse General Gifford.

THIS justly celebrated horse will stand, the coming season, at Lodi village, Seneca county, N. Y He was got by Old Gifford Morgan, out of a pure Morgan mare. In his size, color, form, and action, he closely resembles his distinguished sire, and is one of the very best specimens of this invaluable race of horses.

Terms of insurance, 12. Good pasture provided at the usual rates, and all necessary attention given to mares from a distance. Accidents and escapes at the risk of the owners.

March, 1850. [5-2t*] CHARLES W. INGERSOLL.

THE AMERICAN POULTRY YARD.

SIX THOUSAND IN THREE WEEKS!

NEW AND BEST WORK ON POULTRY, comprising origin, history, and description of the different breeds of Domestic Poultry, with complete directions for their breeding, crossing, rearing, fattening, and preparation for market; including specific directions for caponising fowls, and for the treatment of the principal diseases to which they are subject; drawn from authentic sources and personal observations; illustrated with numerous engravings. By D. J. Browne, author of the Sylva Americana. With an Appendix, embracing the comparative merits of different breeds of fowls. By Samuel Allen.

Four editions of the above work have been sold in two weeks. Price in cloth binding, $1. Mail edition, 75 cents.

EXTRACTS OF NOTICES.

"It is the *best work on the subject*, and should be in the hands of every 'Biddy Culturist.'"—*Mahoning Index.*

"Its editor was well qualified to fulfil the task he undertook, and has accomplished it with fidelity and talent.'—*American Farmer.*

"This is a work which will commend itself to every farmer."—*Mirror of the Times.*

"As a work of *practical utility* we recommend it."—*Farmer and Mechanic.*

"It would be a *cheap book* to a *farmer* at almost any price, if he would profit by its directions."—*Richmond Whig.*

"It is a good work, and will have general circulation."—*Fairfax News.*

"This is not merely a dry morsel, but is an interesting work on the natural history of Fowls, as well as the best modes of raising and treating them."—*Scientific American.*

ALSO—New edition of Allen's American Farm Book. Price $1; mail edition, 75 cents.

Allen's Diseases of Domestic Animals. 75 cts.

Miner's American Bee Keeper's Manual. $1.

Guenon's Milch Cows: new edition. 37½ cents.

In press—The American Bird Fancier. 25 cts.

Published at C. M. SAXTON'S Agricultural Bookstore, 121 Fulton street, New York, and for sale by DAVID HOYT, 6 State street, Rochester.

Rochester, May 1, 1850. [5-2t]

SEEDS AND FARMING TOOLS.

NOS. 12 AND 14 FRONT STREET, ROCHESTER, N. Y.

JAMES P. FOGG, PROPRIETOR.

I INVITE Farmers, Gardeners, and Dealers, to examine my stock of Seeds and Tools. The Seeds have been selected with care, and grown by the most experienced Gardeners in this and the New England States. My stock of Foreign Seeds I have received direct from the well known Seed Establishment of George Charlwood, of Covent Garden, London, and I can recommend them with confidence to Farmers and Gardeners.

GRASS SEEDS—Large Red Clover, warranted; Small Western Clover; White Dutch Clover, for door yards; Lucerne, or French Clover; Red Top, eastern seed, extra quality, for wet lands; Timothy, or Herds Grass; Orchard Grass.

SPRING WHEAT; Spring Rye; Barley; Oats; Marrowfat Peas; Small Canada Peas; Early Garden Peas; the earliest in market; Field Beets; Field Carrots; Ruta Baga; Turnep; &c.

ALSO, a complete assortment of Vegetable and Flower Seeds, for retailing.

FARMING TOOLS.—I have leased, for a term of years, the store No. 14 Front street, adjoining the Seed Store, intending to devote this store entirely to Agricultural Implements. I have now room sufficient to keep on hand any Machines or Implements that the manufacturers are bringing to the notice of the farming community, and will give my personal attention to their exhibition and sale.

During the last seven years, my attention has been given to the Seed and Implement business, and my acquaintance with the Farmers in Central and Western New York, and Canada, is fully equal to that of any individual engaged in the business.

I shall keep a supply of the best PLOWS that are made, also the Points of most of the Plows now in use in this part of the State.

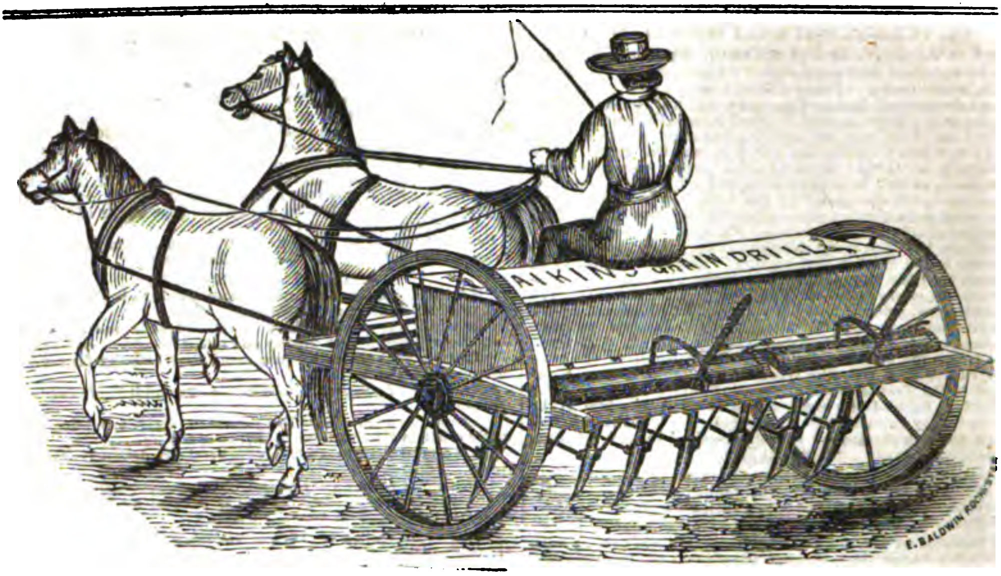
Cultivators and Steel Cultivator Teeth, Seed Drills, Sub-soil and Side-hill Plows, Horse Powers and Threshing Machines, Hay and Stalk Cutters, Corn Shellers, Ox Yokes and Bows, Garden Spades, Shovels and Hoes, Horse Rakes, Scythes and Snaths, Budding Knives, Pruning Saws and Knives, Garden Rakes, Ladies' Garden Hoes and Transplanting Trowels, Thermometer Churns, Circular and Dash Churns, Cattle Ties, &c., &c.

Rochester, May 1, 1850. JAMES P. FOGG.

The Old Rochester Nursery

CONTAINS the usual assortment of trees, shrubs, and plants, among which are 30,000 Northern Spy Apple, at from 25 to 50 cents each, according to size; 5,000 of the celebrated Giant Rhubarb, the best sort for market or for hotel gardens, where large quantities are required through the season. This sort producing no seeds, it may be cut through a considerably longer period of time than other sorts. Price $80 per thousand. $10 per hundred, $2 per dozen, or 25 cts. each. 1,000 of the celebrated Frost Gage plum tree. Also a few large ornamental trees at a bargain to clear the ground.

Orders by mail promptly executed, and trees packed in the best manner. S. MOULSON, 36 Front st., Rochester, N.Y.



AIKIN'S GRAIN DRILL AND CORN PLANTER,

FOR SOWING IN DRILLS WHEAT, BARLEY, OATS, RYE AND PEAS, AND PLANTING CORN IN HILLS OR DRILLS.

THIS machine is now being extensively manufactured, and for sale, by the subscribers, at the old and and well known manufacturing establishment of Messrs. Fitch, Barry, & Co. It will sow up hill or down, and across dead furrows, as well as on level ground. It is easily guaged to sow any quantity required, and will distribute even and cover the grain at a uniform depth, and is warranted to do the work well, to be substantially made, and of good materials. We know of no drill made that equals it for sowing all kinds of grain.

The advantages of drill culture are now well established, which are, 20 per cent. saving in seed, 15 per cent. in labor, and from 5 to 30 per cent. is ordinarily gained in the increase of crop over the usual method of sowing. Many farmers who have tried it, speak much in favor of drilling in spring crops. We give a few references from persons who have used this drill:

Calvin I. Whisher, Sweden, N.Y.
Joseph Niles, " "
David Stanley, Brighton, "
Selden C. Banning, Ogden, "
Reuben Garrison, Clarkson, "
John Blossom, " "
H. Ruggles, Clarkson, "

Wm. Demming, Byron, N.Y.
Sherwood Parker, Elba, "
Gilman Dickey. " "
N. S. Godfrey, " "
C. R. Brinkerhoff, Batavia, "
John Day, Medina, "
Elias Randall, Lockport, "

Gilbert Bodine, Ovid, N.Y.
Frederick Brown, Byron, "

V. D. Bateman, Somerset, N.Y
David Hall, Gaines,

Price of 7-drill, No. 1, without Corn Planter,	$60.	Deliv'd at shop.
" " " with "	65.	
" 8-drill, No 2, without "	65.	
" " " with "	70.	

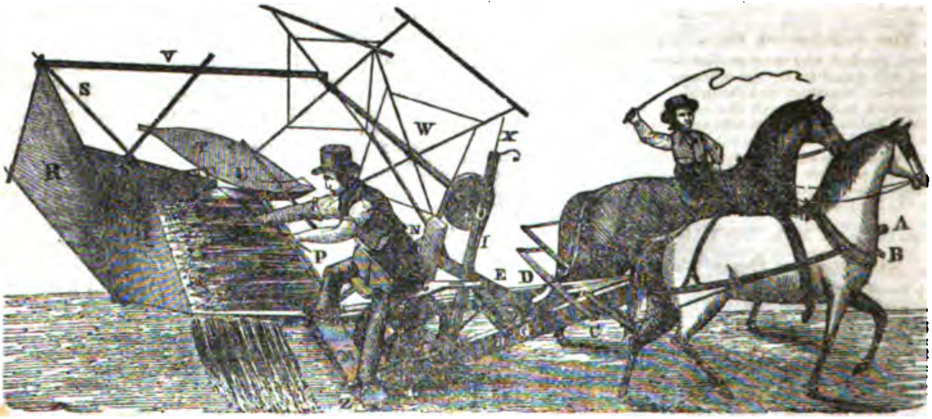
We are also manufacturing 200 of

Rogers' Wheeled Cultivator.

This machine has been much improved during the past winter. It consists in raising one wheel at a time, or both if required, and the manner of hitching to it, thereby giving the machine a better balance, and consequently an easier draught. This machine is well adapted for surface work — it pulverizes and mixes the ground thoroughly, and is said to be a complete cure for Canada thistles and other noxious weeds. This Cultivator, as also the Drill was exhibited at the State Fair held at Syracuse last fall, and took the first premium. Price, delivered at the shop, $30.

Manufacturers wishing to build this machine, can do so by addressing Dorus Hinkston, Clarkson, N.Y.; or Enoch Sweat, Brockport, N. Y. A rare chance is offered.

The last, though not least, is



McCORMICK'S PATENT VIRGINIA REAPING MACHINE.

The Virginia Reaper is no longer an experiment, but has been fully proved to be perfectly adapted to the wants and convenience of every farmer. This machine has been much improved since last year, by attaching a seat for the driver, enlarging the ground wheel, with other important alterations in its construction. We believe that in a harvest of 60 acres this machine will save, in labor and grain, more than the price we ask for it.

Price, delivered at the shop, with one extra sickle and pinion, $80. We give a full guaranty as to its performance, and warrant the machine to be well made, and of good materials.

REFERENCES.

Henry P. Halsted, Venice, N.Y.
Samuel Westfall, Alloway, "
Geo. W. Spencer, Penn Yan, "

A. T. Bailey, Niagara co., N.Y
Jona. Wadhams, Clarkson, "
Abram Bloomer, Romulus "

We are manufacturing but 50 of the Reapers for the coming harvest. We shall have agents out for procuring orders for the different machines, and trust the farmers will send in their orders early. All orders by mail promptly attended to. All are invited to examine our work previous to purchasing.

Brockport, N. Y., May 1, 1850.

J. GANSON & CO.

SEYMOUR & MORGAN'S

IMPROVED REAPING MACHINE,

MANUFACTURED AT BROCKPORT, MONROE CO., N. Y.

THE subscribers are preparing to offer to the Farmers a superior REAPING MACHINE. Having for years been engaged in manufacturing a large number of *McCormick's Reapers*, they are confident that the Reaper which they are now manufacturing is far superior in every respect to any other now in use. It was thoroughly tested in the harvest fields last year and gave entire satisfaction to all who witnessed its operation. It surpasses any machine now before the public in many important points;—the *Cutter* or Sickle being in sections, in case of accident can be repaired by a good Blacksmith, without the owner being obliged to go to the manufacturers for a new blade. The ground wheel is 3 ft. in diameter, and all the geering runs in iron boxes. An early order is important from those wishing to purchase a machine, as we have already contracted for the sale of 300 for the West. In all cases a liberal warrant is given to the purchaser.

The improved Reaper was constructed under the supervision of our Foreman Mr. Geo. F Burnet, who has been engaged three years for us in the business. SEYMOUR & MORGAN.

Brockport, December 25, 1849.

CERTIFICATES

Sweden, Nov. 12, 1849

Messrs Seymour, Morgan & Co.—In my harvest, last season, I used one of your Improved Grain Reapers. I had formerly used one of McCormick's Improved Virginia Reapers, I have had considerable knowledge of them. In comparison, I think yours decidedly preferable; firstly—in point of perfection in cutting, which is the great desideratum, it is far in advance of his, and next, in ease of operation, I think it has decided advantage. I did not obtain your Reaper until a large part of my harvest was completed; consequently I had not an opportunity to test the amount that could be cut in a day, still I am satisfied that it is capable of cutting from fifteen to twenty-five acres per day, and that, too, in the most perfect manner. I used no change of team. I did not find it necessary in doing an ordinary day's work,—about fifteen acres per day. I tested your machine in wet grain and when there was grass at the bottom; here I found it had a great advantage over other Reapers in use, it being able to go through almost any grain, some badly lodged, without any apparent difficulty of clogging the knife. And from my experience I think it a valuable labor-saving-machine, and would cheerfully recommend it to the attention of farmers, as I think grain can be cut with it, all expenses counted, at half the cost of cutting it the ordinary way.—Wheat can be bound and shocked in a better manner, and with less labor, besides a great saving in the waste of grain.

Yours &c. F. P. Root.

I saw the aforesaid, Seymour & Morgan's Improved Reaper, in F. P. Root's harvest field and do concur in the foregoing statement.

Wm. Root, Esq.
D. H. Root.

I have seen the Machine work in very heavy, and also in wet wheat where it performed well, and believe it to be an improvement upon McCormick's Reaper. There was no clogging, as in the case of McCormick's and it must be a good machine if well made. Nathan Locke.

Brockport, Nov. 13, 1849.

Messrs. Seymour & Morgan:—Gents—I used one of our Improved Reapers in my harvest, which worked better than any I have seen before used—cutting wheat when there is much grass, without choking, which other machines that I have used would not do.—I have had much experience with Reapers—having purchased the first one of McCormick's brought to this State. I have since put a large number of McCormick's in operation at the West, and believe yours to be the most perfect Reaper now in use.

A. Chappell.

I used one of Messrs. Seymour & Morgan's Reapers last harvest, and cheerfully recommend it to Farmers as the best machine within my knowledge for cutting grain. Geo. H. Allen.

Brockport, Nov. 13, 1849.

This may certify that I used in my harvest of 1849, Seymour & Morgan's Improved Reaper, which worked to my entire satisfaction; cutting grain in all conditions. I believe it cannot be clogged in either grassy or green wheat. I have witnessed the operation of other Reapers now in common use and I believe it to be superior to any that I have seen—cutting wet or grassy wheat where other Reapers cannot. F. W. Brewster.

Brockport, Nov. 12, 1849.

We have seen the trial of Seymour & Morgan's Improved Reaper in the harvest of F. W. Brewster—and having witnessed the operaton of other Reapers, we believe this the most perfect machine now in use

J. A. Holmes,	Allec Potter,
D. A. White,	W. Theo. Downs,
Morgan Randle,	O. A. Royce,

C. J. Hayden's

CABINET AND CHAIR WAREHOUSE.

CONSTANTLY on hand every variety of CABINET FURNITURE, every style of Beadsteads and Chairs, which he is now offering at GREATER BARGAINS than can be had elsewhere in Western New York.

No. 6, Front street, Rochester, N. Y.

☞ All work warranted good, or no sale. [4-2t]

FRESH GARDEN SEEDS, IMPLEMENTS, &c.

RAPALJE & BRIGGS respectfully invite the attention of dealers in Garden Seeds to the stock they are now receiving at their Agricultural Warehouse and Seed Store, consisting in part of the following sorts:—

Beets, sorts; Broccolis; Cauliflowers; Cabbages, sorts; Carrots, sorts; Celery; Cress; Cucumbers, sorts; Lettuces, sorts; Melons, sorts; Onions, sorts; Peppers; Pumpkins; Radishes sorts; Spinages; Tomatoes; Turnips; Early and Late Peas; Dwarf and Pole Beans; Early and Sweet Boiling Corn, Flower Seeds, &c.

The above seeds being raised expressly for us during the last season, by faithful and experienced Seed Growers, we have perfect confidence in offering them to the public.

Seed Grain.—One of the most important cares of the farmer, is the judicious selection of his Seed Grain; and in order that that care may be lightened, and that we may be able to furnish Seed of the best quality, and well adapted to this climate, we have had selected for us, of the following sorts, such Seed as we feel confident will give perfect satisfaction to all:—Black Sea Spring Wheat, Italian do. do., Siberian do. do., Spring Rye, Barley, Bedford Oats, Buckwheat, and many choice varieties of Corn. Also, an extensive assortment of Garden and Grass Seeds.

Our stock of Seeds is now the most complete and extensive in the country, having received from London, the past winter, immense quantities of *Turnep*, *Cabbage Seed*, *&c*

We have also, at our Warehouse, the largest and best assortment of Agricultural Implements in the State, consisting of Threshing Machines, Reapers, Corn Shellers, Straw and Stalk Cutters, Horse Powers, Water Rams, Plows, Hoes, Spades, Forks, Pruning Saws and Knives, Churns, Harrows, Rakes Drilling Machines, in short, every article used by the Farmer, the Gardener, or the Horticulturist, from an Apple-Pearer to a Saw-Mill.

We ask every Farmer who needs *Seed* or *Tools*, to give us a call, at our Warehouse in Rochester, nearly opposite the Eagle Hotel, on Buffalo street, where we think we can satisfy all that our stock and prices are right RAPALJE & BRIGGS.

A Rare Chance—Important to Wool Growers.

THE Subscriber having recently purchased of Merril Bingham, of Vermont, at a great price FIVE BUCK LAMBS, from pure blooded Spanish Merino Ewes sired by the celebrated French Merino Buck, imported at a great expense by Mr. Bingham and J. A. Tainter, of Connecticut, in 1847, offers the same for sale to farmers in this secton, desirous of improving their stock of sheep. The chance is a rare one, as the pedigree of these sheep have been substantiated beyond a question, and the evidence is *in hand*.

The subscriber also purchased 30 pure blooded Spanish Merino Ewes, all in Lamb, by the old imported Buck above mentioned and now owned by Mr. Bingham, and a full blooded French Merino Ewe and Buck, at $200, which will be held for service another fall. This class of imported sheep shear from 18 to 23 lbs. of pure washed wool to the head. The size of carcass exceeds any thing now known in America.

He is fully confident that the superior advantages and the opportunity for great improvement thus offered to the Wool Growers of this county and section of country, will be duly appreciated. All who wish to purchase or examin the Foreign Blood, can do so at any time by calling at his residence three miles north of Albion, and one mile north of Fair Haven.

JOHN J. McALLISTER.

Gaines, March 15, 1850. [4-3t]

THE subscriber, in returning his sincere thanks to the citizens of Rochester and the surrounding country, for the liberal patronage which he has received for the last twelve years, begs to inform them that he has removed his Greenhouse from Monroe street to Mount Hope Avenue, opposite Clarissa street bridge, where he intends, in connection with Jabez Dow, Nurseryman and Gardener, to cultivate all kinds of Fruit Trees, Shrubs, Flower Seeds, Roots, and Greenhouse Plants, for sale cheap, and hopes he will still continue to receive a share of their patronage. He has upwards of 20,000 Fruit Trees for sale, of the very best kinds, cultivated principally from one of the largest and best orchards in the country, belonging to James Whitney, Esq., of this city. His facilities are such that he is able to afford to sell cheaper than any other establishment.

Rochester, May 1, 1850. WILLIAM KING.

Monroe Nursery.

THE Subscriber would remind his friends and the public that the season of transplanting trees is at hand, so that those, who intend to set out trees this spring, would do as well to make an early selection.

He is ready to make contracts wholesale or retail. His trees are of the most thrifty growth and well assorted, consisting of fruit and ornamental trees, together with a beautiful stock of green house plants, all at reduced prices.

☞ Applications, (post-paid) will be promptly attended to.

Greece March, 1850. [4 2t] CHARLES POWIS.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y., warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.

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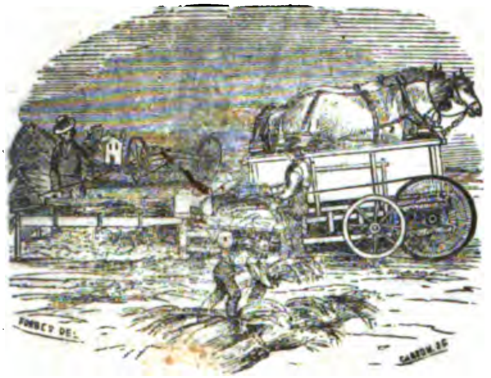

Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Separator.

THE subscribers. Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for machines, and to establish agencies, to any extent that may be desired.

These machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs, held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse, or single machines, thresh rather more than half as fast as the double ones.

These horse powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, (of a proper height to allow the feeder to stand erect and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain, or short oats, and re-setting it at pleasure, for long rye or wheat, or oats in good order, or for timothy grass or clover; and all this is accomplished without stopping the machine, so simple is the process. By means of the Separator the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon; but where frequent moving is desired, the two-horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M., & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers; and also Circular Saws and Benches, for cutting ordinary fire wood and locomotive and other fuel.

Every machine made or sold by W., M., & Co., or their Agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two-horse machine, complete, being less than 2,000 pounds, and of the one-horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canadas, where they are needed to facilitate the sale of these machines. Good agents are wanted in the southern and western States and the Canadas, to whom liberal commissions will be allowed. Our Agents, as far as definitely ascertained, are—

Rapalje & Briggs, Rochester.
T. C. Peters & Brother, Buffalo
Peter R. Sleight, Esq., Poughkeepsie.
F. F. Packer & Brother, Detroit.
——— ———, Chicago.
W. D. Bacon, Waukesha, Wisconsin
John Melick, Trenton, N. J.

These machines may also be had of Horace L. Emery, Albany, and of John Mayher & Co., New York city.

WHEELER, MELICK, & CO.,
Hamilton st., corner of Liberty and Union sts., Albany, N.Y
May 1, 1850.

Grass Seed.

THE attention of Farmers is invited to the following assortment of superior Grass Seeds:

200 *bush.* *Western Clover.*
100 " *Large Southern Clover.*
15 " *White Dutch Clover, or Honeysuckle.*
10 " *Lucerne, or French Clover.*
500 " *Herds Grass, of superior quality.*
20 " *Red Top, extra quality.*
Fowl Meadow. Orchard Grass.
Italian Rye Grass.

☞ The above seeds were selected with great care, expressly for retailing, and are warranted superior to any ever before sold in this city. For sale at the Genesee Seed Store and Agricultural Warehouse, No. 65 Buffalo street, Rochester, by

May 1, 1850. RAPALJE & BRIGGS.

TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds. Stained and enamelled Glass;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass. French White Looking Glass Plates, &c., 17 Buffalo street, Rochester, N. Y.

The Morgan Stallion Gifford Morgan, Jr.,

WILL be four years old May 29, 1850; was sired by Gifford Morgan; g. sire, Woodbury Morgan; g. g. sire, Justin Morgan. His dam was sired by Sherman Morgan, and he by Justin Morgan. The g. dam of Gifford, Jr., was sired by Justin Morgan. This combines in Gifford Morgan, Jr., *more of the Morgan blood than is possessed by any other stallion in this State.* In color, size, form, and action, he closely resembles his sire.

He will be kept on my farm, at $10 for each colt.

Fairmount, Onon. co., May 1, 1850. [5-1t*] E. MARKS.

Important to Farmers.

AGRICULTURAL BOOK STORE.

THE Subscriber has opened a Store at No. 71 Chambers st., "Irving House," New York, where he will be happy to attend to all orders for AGRICULTURAL or other Works, which will be sold at prices as low as can be furnished by any other house in the city.

☞ Books sent by mail or Express, carefully packed, to any part of the Union. Address CHARLES B. NORTON,
Agricultural Book Store, New York.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—JUNE, 1850. NO. 6.

PREPARATION OF NIGHTSOIL.

We have received several private letters asking information as to the best way of preparing and using nightsoil, which we propose to answer through the pages of the Farmer.

Some experience and considerable research have convinced us of the necessity of restoring to all depastured, mown, and tilled lands, a part of all the plants removed in grass, hay, grain, or roots, either by man or his domestic animals. Every farmer should adopt a system of husbandry which will so improve his cultivated fields, that thirty bushels of wheat and sixty of corn will be a common harvest. To do this, those elements in the seeds of grain, roots, and grass, which form *meat*, and the richest manure, such as is found in the vaults of privies, must be saved and applied to the growing crops in the most skillful and economical manner.

There are two points to be attained in preparing nightsoil. First, to remove all odor or offensive smell from the fertilizer. Second, to get rid of the 75 per cent. of water in the semi-fluid mass. These purposes effected, and there remains a very concentrated and exceedingly valuable food for all cultivated plants, which may be drilled in with seed wheat, or sown broad-cast over growing crops. Every privy should have a water-tight box in the vault, so arranged that it can readily be drawn out at the back side or one end of the building, and emptied of its contents. Gypsum and common salt are the most economical deodorizing agents that can be used. A very moderate quantity of either will answer, although a little of both salts, that is, sulphate of lime (gypsum) and chloride of sodium, (common salt,) is better than to use but one. No more should be used than is required to fix all volatile elements, especially in cities and villages where the fertilizer has to be carried some distance. For this purpose, it is believed that 15 per cent. of gypsum or 10 of common salt will suffice, estimating the whole at its dry weight.—That is to say, 1000 lbs. of dry poudrette should contain 150 of gypsum, or 100 of salt. Where the last named articles are cheap, it might be better to have 250 lbs. of plaster of Paris and salt to 750 of dry excretions. The more of the salts contained in urine the fertilizer possesses, the larger the amount of gypsum or common salt one should use to fix the ammonia. Plaster of Paris will form *sulphate* of ammonia, the sulphuric acid (oil of vitriol) leaving the lime in the plaster to unite chemically with the volatile alkali called ammonia. In a similar manner, the chlorine in common salt (chloride of sodium) will leave the sodium to combine chemically with ammonia, and form sal. ammoniac, (chloride of ammonium.)

After gypsum and salt have been applied to the mass of stercoraceous matter, it should be well dried in the sun, precisely as common salt is made by solar evaporation. In large establishments in cities, the fecal matter, after it is dried, should be ground in a bark mill, to form a fine powder which could readily be drilled like the finest guano or ground hen dung.

One hundred pounds of dry food, consisting of bread, meat, potatoes, and vegetables, will form about forty of solid excretions. To this, ten pounds of salt and gypsum may be added, when the fertilizer on fair land will re-produce 150 lbs. of bread, meat, and potatoes again. On poor land, which is leachy, not over 50 or 75 pounds can reasonably be expected from the poudrette, or nightsoil.

We have so often stated the well ascertained fact, that some 60 per cent. of the solid matter in the food consumed by all the higher orders of animals, escapes from the body through the lungs in the process of breathing, that it appears unnecessary to explain again this natural phenomenon. In a barrel of flour sent to market, there are 186 pounds of carbon (charcoal) and the elements of water. When this flour is eaten in bread, about 117 lbs. escape as vapor and carbonic acid from the organs of respiration into the atmosphere, and 79 lbs. appear as feces and salts in urine. Of these 79 lbs., 70 are still nothing but carbon (coal) and the organized elements of water, (oxygen and hydrogen.) The other 9 lbs. are azote (base of ammonia) and incombustible salts, or earths. By retaining all of these elements, including nitrogen, or azote, in conjunction with 30 lbs. of organized carbon, oxygen, and hydrogen, it is confidently believed that 39 or 40 lbs. of the most precious atoms in a barrel of flour, drilled in with the seed, will produce, with fair tillage and fair seasons, wheat enough to make another barrel of flour. In this estimate, it is assumed that the farmer will make a good use of the bran, chaff, and straw, as well as the fertilizers derived from flour. By not loosing any straw nor bran, and regaining 20 per cent. of the *best* ingredients in the flour, good crops of wheat can be grown at much less expense than is now generally incurred.

Where nightsoil is not to be hauled but a short distance, dry muck and pulverized charcoal may be used to advantage as an absorbent. Copperas (sulphate of iron) was considerably used in the city of Augusta, Georgia, last summer and autumn, on the recommendation of the writer, as a disinfecting agent, and with the most satisfactory results. There was no cholera, and scarcely a case of fever in the city, during all the warm season of the year. The copperas used was an inferior article, which cost only a dollar per 100 lbs.

A GENERAL VIEW OF AMERICAN AGRICULTURE.

THE POSITION OF AMERICAN FARMERS.

Every one that eats bread, or wears cloth made of wool, cotton, or flax, has a direct personal interest in the results of Tillage and Farm Economy.—Hunger and nakedness are wants of the most pressing character; and Providence has placed them alike in every human being. In civilized communities, all are equally dependent on successful agriculture for the means of subsistence. Let the soil be permanently exhausted, or fail but for a year to reward the labor of the husbandman, and no language can adequately describe the intensity of the universal suffering that must ensue. Hence, this branch of national industry has peculiar and paramount claims to the earnest attention and the fostering care of all governments which are regardful of the public safety, and sustained by common sense.

American Agriculture offers for consideration several interesting and striking features. Prominent among these is the fact, that nearly three-fourths of the labor and capital of the country are employed in this single pursuit. Agriculturists are themselves a large majority of the voters, tax-payers, and consumers of all domestic and foreign goods.

Under their republican system, they are mainly responsible for the good government of each State, and of the Union. If their public servants, whether in Congress or State Legislatures, fail to promote improvements in agriculture, as recommended by President Washington, the fault is not in their representatives, but in those who neglect to ask for such aid as government may properly grant.

American farmers enjoy advantages superior to those of all other nations, for improving both themselves as a class, and their landed estates, up to the highest capabilities of man and of the earth which he cultivates. This republic proffers to rural art and rural science, more than one thousand millions of acres of available farming lands, of which as little or as much may be subdued and improved as wisdom shall dictate. There is neither compulsion nor restraint in either direction. With this entire freedom of action, is associated a degree of security for life, liberty, property, toleration of religion, and exemption from onerous taxes, without a parallel in the history of the world.

In extent of sea coast, facilities for river, lake, and canal navigation—for variety of climate, soil, vegetable and animal products—for indefinite and almost unlimited commercial, manufacturing, mineral, and hydraulic resources, no other country equals this. There is some danger, however, that we shall prove unworthy of so great blessings—that we may forget the source whence they come—abuse the peculiar advantages and the exalted privileges which we possess, and blindly cling to the barbarous practice of impoverishing the soil, to the incalculable injury of coming generations. Instead of exhausting millions of acres without any adequate recompense, instead of looking longingly to the wilderness of forest and prairie at the west, we should search closely into the lands already under the plow, and learn what can be done to add two, three, and four-fold to their present productiveness. The time has at last arrived, when it is indispensable to the continued prosperity of all the older States, that the principles both of renovating and exhausting cultivated fields, be thoroughly and universally understood.

A FEW FACTS ABOUT SOILS, PLANTS, AND ANIMALS.

Soils contain, as a general thing, not more than one part in a thousand of the atoms, in an available condition, which nature consumes in forming a crop of any kind. This statement expresses a fact of great practical importance; for the husbanding of these fertilizing atoms is the first step toward arresting the impoverishment of the earth. It is the matter in the soil which makes crops in one arrangement of its atoms, and forms manure in another condition of the same atoms, that the farmer should learn to preserve from waste and loss.

Soils of different degrees of productiveness, where their mechanical texture and physical properties are alike, always contain unlike quantities of the food of crops. It seems to make little difference how small is the amount of the lacking ingredient in the composition of cultivated plants. Its absence is fatal to the farther growth of the crop, after its appropriate aliment fails in the soil. It is easy to discover the wisdom of this universal law. Suppose Nature should organize grass, grain, and other plants which serve as the daily food of all the higher orders of animals, as well without bone earth (phosphate of lime) as with that mineral. Would it be possible for such grass and grain to yield to the blood of domestic animals and to that of man himself, that solid earthy matter which imparts strength to human bones, and to those of oxen, horses, sheep, and swine? Certainly not. Although *iron* is always present in the food and blood of animals, no farmer ever killed a calf, a pig, or an ox, which had iron for the frame of its system. No anatomist ever saw a bone in the body of a person, formed of other earthy atoms than such as Providence had fitted for this peculiar function in the animal economy.

The brains and muscles of all animals contain both sulphur and phosphorus as constituent elements. If their daily food, derived as it is from the soil, lacked either sulphur or phosphorus, must not this radical defect in their nourishment soon induce weakness and disease, and finally result in premature death? To prevent consequences so disastrous and so obvious, Nature refuses to organize plants without the presence in the soil, *in an available form*, of those peculiar atoms adapted alike to the wants of vegetable and animal vitality. This wise provision should be studied by every one who desires to enjoy sound health and a long and happy life. Most of the "ills that flesh is heir to," as well as most of the maladies of plants, have their origin in the violation of Nature's laws.

The growth and constitutional vigor of all living beings, not less than the revolution of the earth on its axis, are governed by immutable laws. One of these appears to be, that an atom of carbon (charcoal) shall not perform the function of an atom of iron; nor can an atom of iron perform the office of an atom of carbon, or that of any other element concerned in the organism of plants and animals. There are only some fifteen kinds of elementary bodies used by Nature in forming every vegetable and animal substance produced on the farm, in the orchard, or in the garden.

The science of Rural Economy consists in the systematic study of atoms, and the laws by which they are governed, whether they exist in solid or crumbling rocks, in loose earths, in vegetable or animal mold, in fermenting manure, in the living tissues and cells of organized beings, or in the form of invisible gases diffused through the atmosphere. Every product of agricultural labor is either a vegetable or an animal substance; and in its production, not an atom of new matter is called into existence. In the language of science, all matter which is neither vegetable nor animal, including air and water, is *mineral.* All minerals are either solids, like sand, clay, and lime; or liquids, like water; or gases, like common air. The farmer deals largely with atoms in each of these forms; and hence he should be familiar with the several sciences which treat of natural phenomena as witness in the mineral, vegetable, and animal kingdoms. He should know that plants alone can subsist on mineral, or disorganized food — that if there were no plants in the ocean nor on land, neither marine nor land animals could have a being. In the absence of all vegetation, it is obvious that all animals must be carniverous, or cease to consume organized aliment. Being wholly dependent on mutual destruction for the means of subsistence, every day would diminish the aggregate supply of food, and the last animal would soon die of starvation.

From the above reasoning, it is plain that vegetable life is older on this planet than animal life, and that plants may have flourished thousands of years before the lowest type of a being which depended wholly on organized food for subsistence, was created. It will also be seen that the lines of demarkation between animals and plants is well defined, by the fact that the latter can organize the elements of all vegetable and animal substances into these compound bodies, which the former can not do. All plants *produce and increase* organized matter; all animals *consume and diminish* the quantity of organized food.*

WHAT THE COUNTRY HAS LOST BY IMPOVERISHING ITS SOILS.

Taking the census of 1840 as the basis of the calculation, and adding no more than the usual increase, and the number now employed in agriculture in the United States, does not vary much from five millions. The number of acres which they cultivate is not known. In the State of New York there are some 12,000,000 acres of improved land, which includes all meadows and enclosed pastures. This area employs about 500,000 laborers, being an average of 24 acres to the hand. At this ratio, the number of acres of improved land in the United States is 120,000,000. But New York is an old and more densely populated State than an average in the Union, and probably 25 acres per hand is a juster estimate for the whole country. At this rate the aggregate is 125,000,000. Of these improved lands, it is confidently believed that at least four-fifths are now suffering deterioration in a greater or less degree. The fertility of some, particularly in the planting States, is passing rapidly away; in others, the progress of exhaustion is so slow as hardly to be observed by the cultivators themselves. To keep within the truth, the annual income from the soil may be said to be diminished ten cent[illegible]n acre, on 100,000,000 acres, or on four-fifths of the whole.

This loss of income is $10,000,000, and equal to the sinking of a capital of $166,666,000 a year, paying 6 per cent, annual interest. That improved farming lands may be justly regarded as capital, and a fair investment when paying 6 per cent. interest, and perfectly safe, no one will deny. This deterioration is not unavoidable; for thousands of skillful farmers have taken fields poor in point of natural productiveness, and instead of diminishing their fertility, they have added ten cents an acre to their annual income, over and above all expenses. If this wise and improving system of rotation, tillage, and husbandry were universally adopted, or applied to the 100,000,000 acres now being exhausted, it would be equivalent to creating each year an additional capital of $166,666,000, and placing it in a permanent real estate, where it would pay 6 per cent. annual interest. For all practical purposes, the difference between the two systems is $333,333,000 a year, to the country.

There is another view of this important subject, which is worthy of profound consideration. Of the 12,000,000 acres of improved land in the State of New York, 1,000,000 are so cultivated as to become richer from year to year. These improving soils are in the hands of 40,000 cultivators, who take and read agricultural journals, and nobly sustain the State and County Societies of that Commonwealth.

3,000,000 acres of the 12,000,000 are so managed as barely to hold their own in point of fertility.— These lands belong to a class of farmers who do as well as they know from personal observation, and seeing how reading men improve their estates and domestic animals.

8,000,000 acres are in the hands of 300,000 persons who still adhere to the colonial practice of extracting from the virgin soil all it will yield, so long as it will pay expenses to crop it, and then leave it in a thin, poor pasture, for a term of years. Some of these impoverished farms, which 75 years ago produced from 20 to 30 bushels of wheat, on an average, now yield only from 5 to 8 bushels. In an exceedingly interesting work, entitled "American Husbandry," published in London in 1775, and written by "an American," the following remarks may be found on page 98, Vol. I: *

"Wheat in many parts of the province [New York] yields a larger produce than is common in England. Upon good lands about Albany, where the climate is the coldest in the country, they sow two bushels and better upon one acre, reap from *twenty* to *forty*; the latter quantity, however, is not often had, but from twenty to *thirty* are common; and with such bad husbandry as would not yield the like in England, and much less in Scotland. This is owing to the *richness* and *freshness* of the land."

According to the State census of 1845, Albany county now produces only 7½ bushels of wheat per acre, although its farmers are on tide water and near the capital of the State, with a good home market, and possess every facility for procuring the most valuable fertilizers. Dutchess counnty, also on the Hudson River, produces an average of only 5 bushels per acre; Rensselaer, 8; Westchester, 7; which is higher than the average of soils that once gave a return larger than the wheat lands of En[illegible]d, even with "bad husbandry."

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* See Dumas — Balance of Organic Nature.

* We are indebted to the well stored library of JOHN S. SKINNER, Esq., the veteran editor of the "Plow, Loom, and Anvil," for the use of this old and curious work on the early agriculture of this country.

Fully to renovate the 8,000,000 acres of partially exhausted lands in the State of New York, will cost at least an average of $12.50 per acre, or an aggregate of $100,000,000. It is not an easy task to replace all the bone earth, potash, sulphur, magnesia, and organized nitrogen in mold, consumed in a field which has been unwisely cultivated 50 or 75 years. Phosphorus is not an abundant mineral anywhere, and his *sub-soil* is about the only resource of the husbandman, after his surface-soil has lost most of its phosphates.

The 300,000 persons that cultivate these 8,000,000 acres of impoverished soils, annually produce less by $25 each, than they would if the land had not been injured. The aggregate of this loss to the State and the world is $7,500,000 per annum, or more than 7 per cent. interest on what it will cost to renovate the deteriorated soils. There is no possible escape from this oppressive tax on labor of $7,500,000, but to improve the land or run off and leave it. That the latter has been done to a large extent, is shown by comparing the population in rural districts at the census of 1830 with that of 1840. In nearly half the towns in the State, population had *decreased*, notwithstanding the rapid growth of cities and villages, demanding an increase of farm laborers to supply the mere local markets. The canals of New York have operated to hasten the exhaustion of its soils, just as a railroad to California would aid in extracting gold dust from its now unwashed sands. While the canals and railroads of New York convey a thousand tons of the few *precious atoms* in the surface of the earth, which can alone form bread and meat, to tide water, they do not carry back from tide water one ton of the raw material for making crops of any kind. A million tons of human food pass down the Mississippi where one ton of the elements of such food ascend "the father of waters."

It will be seen, on referring to the census of 1840, that the five States of Maryland, Virginia, North and South Carolina, and Georgia, employed at that time 1,013,463 persons in agriculture. Of this number, Maryland had 69,851; Virginia, 318,771; North Carolina, 217,095; South Carolina, 198,363; and Georgia, 209,383.

It is a statistical question of considerable importance, to determine how much less these laborers and the mules, horses, and oxen, which they work, annually produce, than they would had no acre of the arable lands in these States, so highly favored by climate and fertility, been damaged in the least by improper tillage. The difference in the cost of making crops on poor land and on good land, is really much greater than is generally supposed. The shrewd farmers of Massachusetts prefer giving 60 cents a bushel for Western corn, to growing this grain on their infertile soil; while the corn-growers of Indiana and Illinois are glad to sell their crops, made on rich land, at 20 cents a bushel. From these facts, is not the inference plain and satisfactory, that it costs three times more to produce a bushel of corn on *poor* than on *rich* land?

To do full justice to this interesting problem, "By what means, and to what extent, the soils of the five States above named have been injured," would fill a volume. A residence of more than two years in the most southern of these States, connected with its agricultural press, and devoting much time to the study of soils and their products, will warrant the writer in expressing an opinion on the weight of evidence collected from all sources within his reach. The annual loss on the labor of each hand and mule is believed to be $30. This estimate is too high on some plantations, and too low on others. The only reason why so many slaves have been sent South during the last 25 years, (and thousands sent out of Georgia,) is, that the labor of a person is worth twice as much to cultivate rich, fresh land, as poor, old land.

If the estimate of a yearly loss of $30 on each hand, and the domestic animals which he works, be not too high, then the aggregate exceeds *thirty millions of dollars.* This is equivalent to having sunk a productive capital invested in farming lands, *at a cheap rate*, of *five hundred millions of dollars*, yielding 6 per cent. annual interest. While England and France have derived hundreds of millions of profit and revenue from the tobacco and cotton exported from Georgia, the Carolinas, Virginia, and Maryland, a large share of all the proceeds received for these staples, which have so desolated the earth over immense districts, has left these old impoverished states, with their emigrating citizens, *never to return.*

This unwise system of tillage is extending rapidly in the United States.

Manufacturers, merchants, and mechanics, often shift their settled policy, when they see a profit in making a change. But whoever expects millions of isolated farmers to change suddenly their practices, ideas, and systems of culture and husbandry, shows that he has not labored twenty years to substitute an improving for an exhausting system of field culture. At a fair estimate, there are at this time 2,741,966 persons employed in agriculture in the fifteen slave-holding States. Before the study of rural economy as a science will become as popular as the study of politics, law, and medicine, the South will have at work in the field, a force of five millions of operatives. Who does not see that the wise and skillful employment of this vast power of production, is a matter of inestimable consequence to all the planting States, and to unborn millions who must dig their daily bread from impoverished soils, if the mighty work of land exhaustion is to increase and extend, as population spreads over the cotton, tobacco, and sugar growing parts of the Union? Propagated by buds instead of seeds, the sugar cane will be found, like the potato plant, less able to withstand the customary abuses of the earth — the rude violation of the laws of nature — than tobacco, corn, wheat, and cotton plants. But all these are suffering in vital force and constitutional vigor, by reason of their defective food, in partially exhausted soils. Any living being may habitually take a very little poison into its system without destroying life. Pursue the practice of poisoning the blood of animals or the juices of plants, only to a very small degree, and it will tell in the course of a few generations, in strange, new, and incomprehensible maladies. An instructive and useful book might be written on the diseases of cultivated plants; to say nothing of those of domestic animals. Mildew, mold in cheese, rust on wheat and cotton, and fungi, believed by naturalists and botanists to be so injurious to potatoes, are all, in a good degree, like other vegetable creations, subject to the control of human industry and science.

If we visit the farmers of the Northwest, we shall find the popular feeling developing itself after this fashion: "Let us construct railroads and canals, improve our navigable rivers and lake harbors, purchase the best farm implements, and then employ all our capital and energies in transforming every atom in the soil which will make grain, provisions, and wool, into those marketable commodities, and send them to distant cities and nations for consumption." This agricultural and commercial enterprise is complacently regarded as the wise development of the agricultural resources of a new country! Although the inevitable results of this practice may be seen in each of the old thirteen States, as in the valleys of the Mohawk and Hudson, yet it is confidently believed by sanguine farmers, that the truly rich soils of the West are inexhaustible.

Whoever will examine this great national question, of taking every thing out of the land and putting back nothing, must be satisfied that no other than the most disastrous consequences can follow. The number of laborers employed in this simple operation, increases at the rate of 200,000 a year, in the United States.

To repair the damage already done to the soil, will cost over one thousand millions of dollars.

S. W.'S NOTES FOR THE MONTH.

The next Seneca Co. Ag. Fair.—The rural village of Ovid has fairly won the palm from Waterloo and Seneca Falls, by overbidding them something less than $100 for the privilege of locating our next Cattle Show there. Well may friend **Moore**, of the Rural New-Yorker, boast of the number of his Ovidian subscribers, as no other hamlet or village rural knows better how to keep up with the spirit and intelligence of this progressive age, than this same Ovid. For the benefit of those who have not travelled through this all fertile alluvial county of Seneca, let me say that this village, which takes its name from the most voluptuous poet of the Augustian age, is situated on the western brow of the dividing ridge which separates the Cayuga and Seneca lakes. From here you look down upon the broadest expanse of the Seneca, four miles distant, as upon a surface of moulten silver; what the perspective lacks in sterile grandeur of mountain precipice, or basaltic rocky cliff, is amply compensated by the richness of the picturesque landscape — green fields now and then, yellowing into harvest; neat and often ambitious farm-houses; capacious, painted barns; grain stacks and hay stacks; extensive orchards; all of which is relieved by very many patches of dark brown woods of very tall deciduous trees; — filling the mind with the idea of the land's fatness and man's thrift. But, reader, this half shire, romantically perched little village, is not by any means as beautiful as it will be; as it grew up in a utilitarian age, before **Downing**'s day, you will not now see many cottages or sub-rural houses standing a little back from the street, with French windows looking out upon shrubs and flowers; but the conviction will force itself upon your mind, that this is the place for them, and that soon here they will be seen.

The Wealth of our Farmers.—It is a common observation that the farmers are full of money—"no debts to pay, no notes in the bank." When you find a bank put to it for notes to pay a check, the Cashier will tell you that the circulation has been paid out for farmers' products, and that it has not yet left their pockets. But I take it that the pecuniary ease of the farmers is not to be attributed to the high prices they have received for their surplus products, nor to the large amount of that surplus, but only to their superior industry, economy, self-reliance, and the paucity of their wants, growing out of their comparative expenseless social position. Few farmers seem to be aware of the great pecuniary saving incidental to life on a farm; hydra-headed corporation taxes do not reach them there; pauperism in its endless phases, from fixed domiciliated want to varied, daily, ambulating beggary and fraud, is only of the overgrown village or large town. 'Tis true that an occasional subscription paper may sometimes annoy the farmer, and beard him at his home; but they do not haunt him nightly, nor stare him in the face at all hours, and at every corner of the street. And then the expense of following the ever changing tyrant Fashion — the daily sacrifice made to the eyes of others — may be well dispensed with on the farm, where prying eyes from without are rarely seen. 'Tis true, of late, that many sons and daughters of thrifty farmers do follow the expensive fashions in dress, to a certain extent; but rarely beyond their ability to pay by the avails of their own superior industry. There may be among them the votary of fashion; but never its culpable slave.

It is said that the revenue of the United States will this year amount to $38,000,000 of dollars. The better part of this great sum is received for duties on imported luxuries and the finer articles of dress. Although two-thirds of the people are farmers, it is not supposed that one-fourth part of this great tax is paid by farmers. Hence, as I said before, farmers are rich only from the moderation and simplicity of their wants, and not from the high prices they receive for the products of their industry.

California.—There seems to be a great discrepancy between the accounts by the private letters from California, and those of the California newspapers. All the California papers hold but one language, which may be summed up in the following lines of **Ben Jonson**:

> Here, are the golden mines,
> Great Solomon's Ophyr! He was sailing to 't
> Three years; but we have reach'd it in ten months.
> This is the day wherein, to all my friends,
> I will pronounce the happy word, BE RICH.

Yet, sad to say, from letters both published and private, we learn that within a short distance of these very printing offices, in the month of December last, more destitution, sickness, exposure, and positive suffering has been witnessed in a day, than can be met with in the United States in a twelvemonth — that "five out of every twelve are sick"— that thousands would return to the United States, had they the means to do it. A letter from Michigan states that money was scarce before; but since the California fever, it commands 25 per cent., secured on bond and mortgage by the infatuated farmer, who thus puts his fee-simple "upon a cast," to raise money to take him to El Dorado. Another letter, from Wisconsin, computes the amount of money already abstracted from that new State, by California adventurers, at the incredible amount of $3,000,000.

The forty quart Cow. — Mr. H. **Smith**, of Covert, says that his cow will give forty quarts of milk per day — that "he has weighed one mess, not the largest, which weighed 32½ lbs.;" this is only about sixteen quarts. **Joseph Wright** says he must have some better evidence of a forty quart cow, before he goes to Covert with his $500. S. W.

Answers to Inquiries.

Messrs. Editors :—I am a reader of your paper, and find many things in it to commend, and it would be strange if there was nothing to condemn. I wish to see something on the opposite side or against the State's founding an institution to make scientific farmers. Now, if this could be accomplished so as every tax paying farmer could share equally, it would be admirable ; but we have many institutions with endowments by the State, which only benefits that class which are well able to bear the expense without calling in the aid of poor tax payers. In my opinion, it would be like some advertisements we now and then read : Mr. A. has some fine bull calves to dispose of, worth from $100 to $300 ; Mr. B. has bucks, say $50, &c.; while his less nóted neighbor has equally as good stock, but no one to puff him ; therefore he must take up with one quarter of the above price. And again, the poor farmer would have (as now) to take up with the worst land, such as light sand or hard clay, which would cost the most to put in a state to produce ; so I come to the conclusion not to tax him for the benefit of those that can do without it. I make tho above observations merely to draw out your views on the subject.

One or two more questions, and I close. You write for the information of farmers : how many of your readers understand the phrases you use in analysing soils ? Farmers have been so hoaxed with Latin terms by Lawyers and Doctors, that they think there is something behind the curtain. What will our grandchildren think when looking into a volume of the Genesee Farmer they see an advertisement with bolus and bottles. W. T.—*Alexander, March*, 1850.

We thank our correspondent for speaking his mind freely in the above note. He "wishes to see something said against the State's founding an institution to make scientific farmers." This seems to be hardly necessary ; for nearly thirty years have elapsed since serious efforts were first made to establish agricultural schools in this State, and down to this hour no legislature has ever been convened in the capitol, that was willing to give the first dollar to aid in so great and important an undertaking. Why labor to kill a thing which never had vitality ? The opponents of agricultural schools have it all their own way, and ought to be satisfed.

"W. T." seems to think that persons having choice domestic animals for sale should not advertise the public of the fact, although this information does no more than intimate to such as desire to purchase "fine bull calves," where they can be found. Not only must there be no schools for the improvement of young farmers, but there should be no advertising of anything which an agriculturist has to sell.

Our correspondent asks : "How many of your [our] readers understand the phrases used in analysing soils ?" We answer, several thousands ; and what is most encouraging, the number is daily increasing. The wild Indian who can count ten, and understands the value of each number from one up to the first decimal, finds eleven, twelve, and thirteen, just as incomprehensible terms as "W. T." does oxygen, hydrogen, and carbon. There is not a particle of difference. Thirteen is a worse word for a child to learn and fully comprehend, than the *name* of any visible or ponderable substance treated of in agricultural chemistry. If a farmer knows little or nothing of *chlorine*, which forms 60 lbs. in 100 of dry common salt, it is a good reason why his children should be better informed of the nature and properties of *salt*, than their father. As every new child born in a family must have a name different from all other sons and daughters, to distinguish it, so every new substance discovered in the progress of the arts and sciences, must have some name to designate and identify it. What better word will express our idea of sulphur, than *sulphur* ; or of nitrogen, than an important element in nitre or saltpetre ? There are less than twenty simples which form every plant and every animal on the globe ; and are twenty names too many for an intelligent man or woman to learn ?

Instead of making the Farmer too scientific, and too learned in the study of soils, we have erred, if at all, in the other direction. We should have labored more to convey to every reader a clearer idea of the matter in the soil which forms wheat, corn, oats, potatoes, and grass. It is *things*, not theories, that all cultivators should carefully investigate, and learn the true import of those natural laws which an allwise Creator has appointed for the government of animate and inanimate matter. Those that have studied longest and closest, discover something of the height and depth of their ignorance, and of the inestimable value of well developed reason in practical agriculture. Not to discover that there is great room for improvement, indicates a very limited view of the possibilities in tillage, husbandry, and the education of millions of children, who are so soon to fill our places as the sovereign rulers of the State and Republic.

Messrs. Editors :—I wish that you or some of your correspondents would give us the analysis of the soil and subsoil that has grown a pear tree to the age of forty or fifty years, and done it in good, handsome style, with an abundance of fruit and of magnificent growth. I have seen such trees in this country, and I am sure that if I could remove the earth where it grew, sub-soil and all, into my garden, it would there produce another tree as healthy and fruitful as it did in the other location.

Is it not reasonable to conclude that the pear tree, like all other trees, grains, and vegetables, has some peculiar food in the soil, that it cannot live without. When we reflect that it grows in Sweden, France, Spain, England, Ireland, and in the State of Georgia, and in almost all the States, we must conclude that it is not badly affected by heat or cold. From my own observations and the observations of travelers, I am confident that when we find out what peculiarity of soil it wants, and how to prepare that soil, we are doing more for the tree than we are to talk of frozen sap, high training, low training, digging, no digging, and all such speculations put together.

As the season for transplanting has almost arrived, I wish that you or some of your correspondents would furnish a careful description of the soil, sub-soil, and every other circumstance in the soil, that has for the last forty or fifty years supported a healthy, fruitful, fine growing pear tree, as above desired. And if it does not cost over ten dollars to a tree, I will prepare the ground for a few of the finest varieties this spring. G. Wiborn.—*Victor, N. Y., March*, 1850.

The earthy substances drawn from the surface and sub-soil, by a growing pear tree, are pretty well known. They are such elements as the wood, leaves, and fruit of the tree, yield on a critical analysis ; and such as a peck of good unleached ashes and slaked lime, in equal amount, will supply to the soil. If it is poor in mold, some well rotted manure, chip dung, or swamp muck, should be mixed with the lime and ashes. The soil in which apple, pear, and peach trees are to grow, should not be made very rich with stable manure, as it tends to produce an excess of wood, and much of that not perfectly matured.—Pounded bones are valuable to put into the earth about the roots of pear trees. The best fruit tree soils in the world abound in bone earth, or phosphate of lime ; but all hard wood ashes also contain this important fertilizer. Mix ashes and lime thoroughly with the soil around the tree, and beyond the extreme ends of its roots.

Messrs. Editors:—Relying on your pledge made to a brother farmer in your January number, *I will try.*

First, to institute an inquiry for the general good both of farmers and all others who keep cows. Last spring I lost an excellent cow. She died in about two days after she calved, with what we call the calf fever. My son lost another in the same way, about the same time. We have lost two or three others within a few years past. My son has one sick now with the same disease. Several died in this neighborhood last spring, and I hear of others sick now. I have been a farmer all my days and am now over sixty years old, and never have been troubled with my cows in this way, till within a few years past. I formerly fed my cows on hay through the winter, and before calving I gave them a few messes of potatoes to loosen their bowels, and had no trouble. Within a few years I have fed them mostly on corn fodder, and have not been so particular about the potatoes previous to calving. Now, a query arises in my mind, whether corn fodder is the best food for a cow that is with calf; and not being a chemist myself, I wish the subject to go into the hands of men of science, for investigation, and the results of that investigation published in the Genesee Farmer. Also, the cause of the disease, and preventive, and best cure, if any. My cows are generally in good order. When taken with the disease, they first appear dumpish, disinclined to food, eyes dull; they soon get down and never get up again. They invariably swell up after a while, and appear in great distress till death ends their sufferings.

Now, Messrs. Editors, if you can give any light or instruction on this subject, or obtain it from practical or scientific men, you will bestow a great blessing on your countrymen and on that most invaluable animal with which God ever blessed the human family—the Cow. **Wm. Parsons.** *Millville, N. Y.*, 1850.

If **Mr. Parsons** had now, as formerly, a few potatoes to feed his cows before they drop their calves, they would unquestionably suffer far less, if at all, from this strictly parturient fever. If he can not well raise green feed of any kind, he should mess his cows with bran wet with brine sufficient to keep the bowels loose, for several days before calving, and they will not die of the malady described by him. Dry corn fodder and dry hay are constipating, and tend to inflammation in the system when under considerable excitement from other causes. The disease is an inflammation, and should be prevented; and it may be by the use of carrots, turneps, beets, potatoes, or cabbage. Green food, not in excess, but in regular feed with dry forage, and a reasonable allowance of salt, will enable Mr. P. to save his cows and to obtain from them a generous flow of milk.

Messrs. Editors:—I noticed an article in the February number of the Farmer, in answer to the inquiries of "P. J. W.," on the properties of plaster. Your theory is, no doubt, true, and satisfactory so far as you went; but I have a few questions to add to those that have already been given.

1st. Does plaster possess any soluble substances, or those that will be destroyed by its being wet? [It does not.]

2d. Does it retain its power so as to act on vegetation the second year? [It does.]

The following experiment gave rise to the preceding questions:—Two years ago this spring, I had a field of about four acres which I sowed to oats; I also seeded it, and after bestowing upon it proper labor, I sowed a little plaster on about half an acre of it. The first year there was no perceptible difference in the oats: but when I cut the grass the next year, that part on which the plaster was sown was exceedingly stout, the stalks were large and long, and from that half acre I received two loads of hay; but from the other three and a half acres I received about three loads. Now, I would like to know whether I must ascribe this great difference of ratio to the plaster, or look to some other source for the cause. E. N.—*Oneida Castle, N. Y.*, 1850.

Plaster is so valuable a fertilizer, that measures should be taken to cheapen its transportation to the lowest attainable figure. Lime, ashes, and bones should also be carried at the minimum charge on railroads and canals. Plaster made the gain.

Messrs. Editors:—I am preparing a room in my barn for a threshing machine; a corn sheller; a straw, hay, and corn stalk cutter; and I wish to procure and add a mill for grinding coarse grain for feeding purposes. It has occurred to me that all these might be operated upon, or rather driven by, a wind-mill. I mention these matters for the purpose of asking you whether you, or any of the contributors to the Genesee Farmer, know anything of the manner of construction and cost of a wind-mill? And whether there is any economy in the use of that kind of propelling power? Will you, or any contributor, be kind enough to communicate whatever is known on this subject? Would it be asking too much to request you to name the best and most approved of the four different machines mentioned above? If not, be pleased to do so. **E. Guyer.**—*Highland, Pa., May*, 1850.

There is but one wind-mill of any account now in the United States, which is known to us, and that is in the city of Washington. The wheel is some 60 feet in diameter. It is used for grinding grain, and is aided by steam. In Holland and England, as well as in this country, steam and horse-power are found to be more economical. A wind-mill is a simple and very primitive contrivance.

It would hardly meet our views of propriety to select the threshing machines, straw cutters, and corn shellers of particular manufacturers, and praise them, with the implied condemnation of all others. We aim to give all good mechanics an equal chance in our advertising columns, and avoid everything that looks like puffing or partiality.

Messrs. Editors:—Many farmers who have used Wheatland plaster for years, think its effects upon the soil are not as good now as formerly, and have consequently discontinued its use to a great extent. They think the plaster has deteriorated in value, from some cause—either the beds are not as pure as they used to be, or, perhaps, lime-stone or some other stone is mixed with the gypsum. If Dr. **Lee** has analyzed the plaster of these beds, and can tell us whether or not our suppositions are well founded, he will much oblige many readers of the Genesee Farmer.

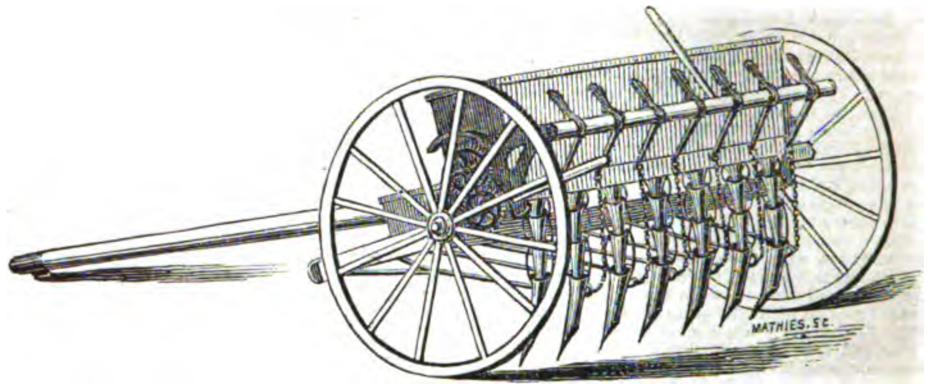
We have not analyzed any of the quarries of plaster in Wheatland, and we should be sorry to believe that any one would add marl, of which there is an abundance in the neighborhood, to the pure mineral. The difficulty doubtless is, that your soils are sick of gypsum, from the lack of bone-timber, potash, magnesia, and common salt, in the land. Plaster is not everything that nature demands to form a clover plant, or a crop of wheat, oats, or corn. Farmers must learn to take better care of the potash, phosphorus, and magnesia, in their soils.

Messrs. Editors:—Could not the culture of indigo be resumed at the South, by adopting what is called the hot water process, latterly in use in India for extracting indigo from the leaves of the indigo plant? There is said to be a great saving of time by this method, and all danger to the health of the workmen, from the deleterious effects of the gases evolved in the old process of fermenting in water of the temperature of the atmosphere, is avoided. And could not the kermes producing oak be introduced at the South, for the purpose of producing kermes for home consumption? It is in some respects much superior to cochineal as a dye; and there is none of it imported, so far as I am aware. J. E.

Undoubtedly indigo culture will some day be resumed at the South; with cotton at its present price, its production will pay better. A large planter, and a late U. S. Senator, has discussed the subject; but the production of indigo is exceedingly unpopular.

The "Kermes oak" we have not studied at all.

To catch Rats—Set a common fox trap; over which spread a piece of cotton or linen cloth, sufficiently large to cover, and sprinkle some meal over the pan—and you *have* him. At least I did. T. R. S.—*Omar, N. Y.*



BICKFORD AND HUFFMAN'S PATENT GRAIN DRILL.

BICKFORD & HUFFMAN'S DRILL.

Some of our correspondents have expressed their satisfaction with the operation of Bickford & Huffman's Drill. W. S. Fullerton, of Livingston county, in this State, expressed the opinion that, with slight improvements, this drill would be the best in use. We now give our readers an engraving of this Drill. A correspondents in Wayne county, writes us—"From what I have seen and been able to learn of this machine, I am inclined to think it one of the most valuable and perfect of any thing of the kind yet offered to the public. There is quite an improvement in adjusting with accuracy the quantity of seed distributed to the acre, which is effected with great precision by the use of toothed wheels of different sizes, increasing or diminishing at pleasure the revolutions of the distributing cylinder. The teeth may be elevated separately or simultaneously, according to the wish of the operator, and the drilling tubes themselves are remarkably well made.

Bickford & Huffman manufactured and distributed to a considerable extent, last year, a Grain Drill of their own, which, so far as I have learned, gave great satisfaction. The one they now manufacture contains some decided improvements on their machine of last year. For cheapness and excellence combined, I do not know where farmers can get a better machine for the purposes intended; and I have no doubt it will prove of great service to the agricultural community, now that the advantages and increased productiveness resulting from drilling in wheat has been so fully and satisfactorily proved."

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IMPROVED SHORT-HORNS—BATES' STOCK.

In my February article on this subject I felt it a duty to place before the public the fact that Mr. Bates considered the *Duchess blood* THE CHOICEST BLOOD in his herd. Having proved this by *undisputable* evidence, and having also shown that Mr. Vail's bull Duke of Wellington, bred by Mr. Bates, his Meteor, and other Bates bulls he had sold to gentlemen in this country and Canada, possessed, in addition to their other good breeding, more of this Duchess blood than 3d Duke of Cambridge, I think I may safely rest the matter here.

As, however, a *direct* attack has been made upon Mr. Vail's very valuable bull Duke of Wellington, by endeavoring to depreciate in the estimation of the public his sire Short Tail and his dam Oxford Premium Cow, it may perhaps be well to show the utter fallacy of the attack. That Short Tail was a great favorite with Mr. Bates, and considered by him as one of his *best* sires, is well known to most breeders of Short-Horns; and were all other evidence wanting on this point, Mr. Bates' "opinion as shown by his practice," is fully recorded in the volumes of the English Herd Book. As to Oxford Premium Cow, Mr. Bates' estimate of her value is equally well known, and as a farther proof of her excellence, I need only add that this same cow was awarded the *first* premium by the Royal English Agricultural Society as THE BEST SHORT-HORN COW—competition open to *all England.*

In the last letter which Mr. Bates addressed to Mr. Vail, speaking of the merits of the two animals in question, he says, "your Duke of Wellington is decidedly a better bull than 3d Duke of Cambridge." To show that Mr. Bates' opinion of the great value of Wellington as a sire was correct, I quote an extract from a letter Mr. Vail received from Col. Hampton of South Carolina, to whom he sold a bull calf, Belvidere, got by Duke of Wellington out of Lady Barrington 3d. Col. H. paid $300 for this calf. He says: "The bull I purchased of you is not only the *best I ever had,* but *superior* to any I *ever saw.* His get are very beautiful and exhibit ALL THE EVIDENCES OF HIGH BLOOD. I have been a breeder of Short-Horns nearly *forty years,* have *imported several bulls,* and bought at various times others from the *best herds* at the North, but have *never* owned one whose stock has given me such *entire satisfaction.*" Col. Summer also speaks in the highest terms of praise of this fine animal. I might add numerous other testimony showing the great value of Wellington, but I deem it unnecessary.

The main positions in the article alluded to, are just as easily refuted as the unjust attack on Duke of Wellington. The article, however, *in itself* is so *very inconsistent,* and the applications are so *wholly inappropriate* and unreasonable, that I deem any farther notice of it, or of whatever the writer may hereafter say on the subject, as entirely superfluous.

Mr. Vail has recently sold another Bates bull, American Comet, to Mr. Belknap of Michigan, for $300, and also two cows and two calves about six months old for $700 more, making in all $1000. He has also still more recently sold two animals to the President of the New Hampshire Agricultural Society. S. P. Chapman.—*Clockville, N. Y.*

Wheat Husbandry.

"RUST" ON WHEAT.

It is sometimes surprising to observe the propensity which is shown by many persons, to be mystified in regard to some of the most simple operations of Nature; overlooking the simple and direct manner in which she always produces effects, men frequently appear to be deluded with the idea that there must be some hidden and secret workings in Nature's laboratory, not visible to the vulgar eye, by which she introduces into being many of her most trivial productions. Hence, many learned men attempt to explore some indirect and round-about way of discovering the origin of things; and by so doing, oftentimes lead others into error, thereby verifying the adage of "the blind leading the blind." An instance of this kind may be found in regard to the cause of the "rust" of wheat; respecting which, in the mind of an observing, practical farmer, there is not a shadow of doubt or mystery; but in the minds of nearly all of those who have written upon that subject, all seems dark and mysterious; consequently they have fabricated the most unnatural and irrational hypotheses. Some writers have supposed the *rust* to be a "fungus plant," having "invisible seeds, which were carried by the wind among the standing grain, and coming into contact with the straws and leaves, were received into their pores, where they took root, grew, and fed upon the sap; thus robbing the grain of its nourishment"! Other writers have conjectured that the "invisible seeds" were lodged in the ground, whence, having been received into the mouths of the small sap vessels, they entered into the circulation with the sap of the plant—that by some of nature's mysterious operations they finally burst the external covering of the stem and leaves, grew upon them as a fungus parasite, robbed the plant of its juices, and caused the grain to "shrink." And "last, though not least," of all the preposterous conjectures concocted in the human brain, in regard to this subject, is the *new* supposition, that "as the wheat plant, when about to head, has been known to send a *tap root four feet into the earth*, to procure nutriment, (!) it comes in contact with cold clay, or a sour, wet sub-soil, turns back in dispair, and dies;"—that, "in accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, comes to finish the work of devastation on the dying wheat"! Shade of Ceres! deliver us from such tissues of absurdities!!! It is not enough, it seems, that we must lose our wheat crops by rust, "in the natural way," but we must have our craniums crammed (I had almost said *cracked*,) with these ridiculous conceits of *rusty* brained writers, who, it would seem, knew as little of the subject about which they wrote, as a goat does of Algebra!

But seriously; these fine-spun hypotheses and net-works of mysteries are quite too absurd to satisfy the mind. 'Tis true they are sent forth as suppositions and conjectures only; but what sensible, practical man, can, for a moment, entertain such preposterous suppositions and conjectures? Who ever discovered a plant of any description, fungus or other, growing out of and feeding upon the living matter of another plant; the former subsisting upon and robbing the latter of its juices, so as to prevent it from perfecting its seeds? There may be, and no doubt are, many things that my "philosophy never dreamed of." I may be told of the "mistletoe" growing upon the oak, and of the "live-for-ever," "growing upon nothing." Be it so; but, I ask, has any one ever yet discovered that the mistletoe robs the former of its juices? No one, I believe, will assert that it does, any more than that the "live-for-ever" robs the latter.

There is no parasitical "fungus" growing upon the living wheat plant in the form of "rust;" what has been supposed to be a "fungus" upon it, is nothing but the crude and undigested sap of the plant itself, which, by the rupture of the sap vessels, runs out and dries on the outside of the straw and leaves. The rupture of the sap vessels is caused by a too vigorous growth of the straw, and consequently a redundancy of sap, induced by warm, damp, and "growing weather," early in the season of spring. If, during this plethoric state of the plant, with its sap vessels distended to their utmost capacity, and just as the grains begin to form in the head, a few days of excessively hot weather come on, the heat swells the sap, and thus ruptures the sap vessels in an immense number of places on the straw and leaves. When the sap first runs out of the ruptured vessels, it is clear and like water; in a few hours, however, it begins to change its color to a dull red, in which state it is called "red rust;" in the course of a day or two it usually changes to a dark brown color, and it is then called "black rust." The effect in the latter case is, that so much of the sap of the plant is withdrawn from it and wasted, that the seed or grain is not filled out, and the produce is called "shrunk wheat." If the hot weather comes on after a large portion of the grain is formed, and continues for a short time, (from one to two days only,) the straw is "struck" with "red rust," and the grain is then generally but little shrunk. If the excessively hot weather occurs at an early period of the filling out of the grain, and continues two, three, or four days, the wheat is usually "struck" with black rust," (the rust within that time generally becoming dark colored,) and the grain is then, most commonly, very much shrunk. The injury done to the crop is in proportion to the redundancy of sap and the degree of heat. Any person having good eyesight can, at the proper season, see the whole process without the aid of a lens, or magnifying glass. I observed it closely, with and without a lens, many consecutive years, during which time my wheat crop was very much injured, and sometimes almost destroyed, by rust. My land was in good condition and well cultivated. I was then in the habit of sowing plaster on such of my wheat fields as I had seeded with clover, for the purpose of making the clover seed take well. It had the desired effect upon the clover; but after several years of experience and observation, I discovered that the plaster caused a superfluous growth of straw with a redundancy of sap, which, with very hot weather, nearly destroyed my crops of wheat. Since I have abandoned the practice of sowing plaster, I have had but little rusty wheat, and what I have had was on black muck soil. The intervale lands (swales) frequently produce rusty wheat, because of the richness of the soil in them, and consequent excess of sap in the straw, when the uplands produce wheat free from rust. The latter, not having so much black muck, or vegetable mold, in its composition, produces less straw and less sap in the sap vessels of the plant. More or less rust, however, is found almost every year, in the swales, where the coldness of the soil retards the growth of the plant in the early part of the season; and when the warm weather causes a rank and rapid growth of the straw, the sap vessels are of course very tender, and more liable to be ruptured by the heat. Late sown wheat is very liable to be rusted, because it comes to maturity so late in the season, that the weather is oftentimes excessively hot before it can be harvested.

As to the means of prevention, I know of none which can be relied on as specific. Preparations of the seed by means of lime, salt, copperas, &c., &c., are worse than useless, being expensive, laborious, and sometimes (as with arsenic) dangerous. It is evident that such preparations can be of no effect in preventing the superabundance of sap, nor the excessive heat, which are the causes of rust. The land should be in good condition; that is, sufficiently but not excessively rich. The seed should be sown as early as it can be done safely on account of the Hessian fly, which, it is well known, is usually ready in the autumn to deposit its nit, or egg, upon the very early sown grain. If, when wheat is becoming rapidly rusty, the grains are more than half grown, it is best to cut it immediately, unless cooler weather makes it unnecessary. If cut, it should lay in swath about half a day, more or less, so as to cure it a little, that it may not become musty in the sheaf. After a little drying in swarth, it should be raked and bound, and put up into shocks, in which situation it should be left until dry enough to put into the barn. It will be much less injured in the swarth and in shocks, than if left standing in the field uncut, because nearly all the straw will be in the shade, the rupture of the larger portion of the sap vessels by heat will be prevented, and the grains will be better filled out; beside, the air in the field is always very much cooler after the grain is cut, than it was before. If the grains are not fully half grown, the wheat cannot be advantageously cut, as in that case the straw withers suddenly, and the grains will not fill out much, if any. J. H. H.

CORN vs. WHEAT.

Eds. Gen. Farmer:—I read, in the February number, the communication of Mr. **Sperry**, on the subject of "Corn vs. Wheat;" also that of "A Gates Farmer," on "Corn vs. Wheat—again," in which he seems to doubt Mr. **Sperry's** conclusions, as he does not give the relative costs of manuring and tillage. He also thinks corn a very exhausting crop. It so happens that my farm consists of land well adapted to corn, and from experience I have adopted the theory, that as much clear money can be obtained in twenty years from 100 acres of good corn land, as from 200 acres of land devoted to wheat.

System of Tillage.—I plow with a large plow and double teams, making from 2½ to four acres per day; harrow well with a large, hinge harrow; plant from 20 to 25 acres per day with a machine of my own make, costing but $3, and drawn by one horse; it plants two rows at once, depositing one grain at a time and the grains 9 inches apart. When the corn begins to sprout, I commence harrowing lengthwise of the rows with my large harrow, and continue until the corn begins to appear above ground. This gives the corn a decided advantage over the weeds. I then use the cultivator freely, cut the weeds once with a hoe, after which I follow with the plow. To prevent the land from being exhausted and save the cost of manuring, I am careful to plow in all the stalks, which will thoroughly renovate and keep up the land for any number of years. I had 180 acres of corn last year, on some acres of which 120 bushels per acre grew. I plant 250 this year. I also let 250 acres more, to be planted. Any communication from my brother farmers, on the subject of corn raising, will be interesting to me. H. R. **Jerome**.—*Huron Co., O., April*, 1850.

THAT MILK STORY.

In the last Farmer I am accused by Mr. **Johnson** of concealing a part of the truth in relation to his 42 quart cow, and of misrepresenting his tin milk pail. As this is the first imputation of the kind that has ever been, to my knowledge, directly or indirectly made against me, I trust that the editors of the Farmer will give place in their columns to the following simple facts in the case, which I can substantiate, if necessary, by positive proof.

In the spring of 1848, I requested my drover friends Messrs. **Woodruff & Lawrence**, to look me up a cow, in the course of their travels, that would give forty quarts of milk per day. On their return they averred that they had seen no such cow, but that the day before, at Geneva, that had been told by Mr. **Johnson** that he had a cow on his farm in Fayette, which gave forty-two quarts of milk per day. The very next day I called at Mr. J.'s farm with a friend. After showing us the cow, Mr. J. remarked that the year before she had given forty-two quarts per day, but that her best yield now was only thirty-nine quarts, and that the day before he had been offered one hundred dollars for her by two drovers at Geneva. My friend then asked Mr. J. if he had ever measured the milk; to which he replied, that his pail held sixteen quarts, which the cow had filled three times a day. Allowing two quarts on each pail for froth, would leave forty-two quarts for the days yield. Mr. J. then, at our request, produced the pail; it was to our eyes a perfect fac simile of a ten quart tin milk pail, narrow at the bottom, partly covered at the top, with a broad open spout, of the usual form of those pails with inside strainers. My friend then told Mr. J. that if his cow would give thirty quarts of milk per day, he would give him two hundred dollars for her. Perhaps I need not here say that Mr. J. was a little offended at this implied doubt of his veracity, as he quickly and tartly replied that the cow was not for sale, and that he could afford to keep as good a cow as any other man.

Should Mr. J. have the good luck to get another calf from his cow, in order to convince him that I think I have not deceived myself, I will bet him one hundred dollars that we have a thirty quart cow in this village (Waterloo) that will give as much, or more, milk in any given time, as his much famed forty-two quart cow. **Joseph Wright**.—*Waterloo, March*, 1850.

To prevent Crows from pulling Corn.—Soak your seed twelve hours, in a solution of nitrate potash and sulphate of copper; three ounces of each to one bushel of seed. I have tried this solution two years, with success. Last year my neighbors complained much of the crows pulling their corn, while I saw them walk all over my field, and not a hill was pulled. C. G. **Leavens**.—*Rushford, Alleg. Co., N. Y., April*, 1850.

NEW YORK STATE AGRICULTURAL SOCIETY.

PREMIUMS AT ANNUAL SHOW IN SEPT., 1850.

(*Continued from page* 115.)

DOMESTIC MANUFACTURES NO. I.

Best pair woolen blankets. $6; 2d do, 4; 3d do, 2. Best 10 yards flannel, 6; 2d do, 4; 3d do, 2. Best 10 yards woolen cloth, 10; 2d do, 8; 3d do, 8. Best 15 yards woolen carpet, 10; 2d do. 8; 3d do, 3. Best hearth rug, 5; 2d do. 4; 3d do. 3; 4th do, 2; 5th do, Small Silver Medal. Best rag carpet, 15 yards, 5; 2d do, 4; 3d do, Small Silver Medal.

DOMESTIC MANUFACTURES NO. II.

Best double carpet coverlet. $5; 2d do, 4; 3d do, 3; 4th do, 2; 5th do, 1. Best 10 yards kersey, 5; 2d do, 4; 3d do, 2. Best pair woolen knit stockings, $2; 2d do, 1. Best pair woolen wove stockings, 2; 2d do, 1. Best pair woolen fringe mittens, 2; 2d do, 1.

DOMESTIC MANUFACTURES NO. III.

Best 10 yards linen, $8; 2d do. 6; 3d do, 4. Best 10 yards linen diaper, 6; 2d do, 4; 3d do, 2. Best 15 yards tow cloth, 5; 2d do. Small Silver Medal. Best pair of cotton knit stockings, 2; 2d do. 1. Best pair cotton wove stockings, 2; 2d do. 1. Best pair linen knit stockings, 2; 2d do, 1. Best pair linen wove stockings, 2; 2d do, 1. Best pound linen sewing thread, 2; 2d do, 1.

Articles to be manufactured within the year; and in all cases the exhibitors must furnish evidence that the articles are so manufactured.

Discretionary premiums will be awarded on articles of merit not included in the above lists.

MANUFACTURES.

Best piece of black broadcloth, not less than 20 yards, Diploma. Best piece of blue broadcloth, not less than 20 yards, Diploma. Best piece of woolen carpet, manufactured in factory, not less than 20 yards, Dip. Best piece of satinet, 20 yards, Dip. Best piece of cotton shirting, bleached, 20 yards, Dip. Best piece of cotton shirting, unbleached, 20 yards, Dip. Best piece of oil cloth, 10 yards, Diploma. Best piece of prints, 20 yards, Dip. Best piece of mousslin de laines, 20 yards, Dip. Best piece of black broadcloth from American wool, 20 yards, Dip. Best piece of blue broadcloth from American wool, 20 yards, Dip.

Competition open to any part of the world.

SILK.

Best specimen manufactured, woven into cloth or ribbons, not less than ten yards, Diploma and $10; 2d do, 8; 3d do, 3.

Reeled Silk—not less than one pound—best specimen Dip. and $6; 2d do, 3; 3d do, Trans.

Sewing Silk—not less than one pound—Best specimen, Dip. and $8; 2d do, 5; 3d do, Trans.

Cocoons.—Best half bushel, (1850.) $5; 2d do, Trans.

Articles exhibited, to be the product or manufacture of the present year.

FLOWERS.

Professional List.—Greatest variety and quantity of flowers, $5; 2d do, 3. *Dahlias*—Greatest variety, 5; best 24 dissimilar blooms, 3; 2d do, 2; best single Dahlia, 2. *Roses*—Greatest variety, 5; best 24 dissimilar blooms, 3; 2d do, 2 *Phloxes*—Best ten varieties, 3; best seedling, 2. *Verbenas*—Greatest variety. Silver Medal; best 12 varieties. 2; best seedling, 2. *German Asters*—Best collection, Silver Medal; 2d do, 2. *Pansies*—Best and greatest variety, 3; best 24 varieties. 2.

Amateur List.—Greatest variety and quantity of flowers, Silver Medal; 2d do, $3. *Dahlias*—Greatest variety, Silver Medal; best 12 dissimilar blooms, 3; best 6 varieties, 2; best single variety, Sm. Sil. Med. *Roses*—Greatest variety, Sil. Med; 2d do, 2; best 6 dissimilar blooms, 3. *Phloxes*—Best 6 varieties, 3; best 3 varieties, 2; best seedling, 2. *Verbenas*—Greatest variety, Sil. Med.; best seedling, 2; best 6 varieties, 3; best 3 varieties, 2. *German Asters*—Best collection, Sil. Med.; 2d do, 2. *Pansies*—Best and greatest variety, Sil. Med.; best 6 varieties, 2.

General List—*Open to all Competitors.*—Best collection of green house plants, owned by one person, Sil. Med.; 2d do, $3. Best floral design, Sil. Med.; 2d do, 3. Best floral ornament, Sil. Med.; 2d do, 3. Best hand boquet, *flat* 3; 2d do, 2. Best hand boquet, *round*, 3; 2d do, 2. Best basket boquet with handle, Sil. Med. For the most beautifully arranged basket of flowers, Sil. Med. Best floral exhibition, by any Horticultural Society, Loudon's Encyclopedia of Gardening.

FRUIT.

Apples.—For the best and largest number of varieties of good table apples, 3 of each variety, named and labelled, grown by exhibitor, Diploma and Hovey's Colored Fruits; 2d do, $5; 3d do, Trans. For best 12 varieties of table apples, 5; 2d do, Trans. & 2. For best 6 winter varieties, 3; 2d do. Trans. and 2. For best fall seedling apple, for all purposes, with description of tree, history of its origin, &c.—one dozen specimens to be exhibited, $5. Best basket of standard fruits, Sil Med.

Pears.—For the largest number of varieties of good pears, named and labelled, Diploma and Hovey's Colored Fruits; 2d do, $5; 3d do, Trans. For the largest and best collection of autumn pears, named and labelled, Dip. and 5; 2d do, Trans. and 2. For largest and best collection of winter pears, named and labelled, Dip. and 5; 2d do, Trans. and 2. Best collection of newly introduced pears, with a description, &c., Diploma and Hovey's Colored Fruits.

Peaches.—Best six varieties, named and labelled, Dip. and $5; 2d do. 3. Best 3 varieties, named and labelled, 3; 2d do, 2. Best 12 peaches, 2; 2d do, Trans. Best seedling variety, 6 specimens, 3.

Plums.—Best collection of plums, 6 specimens each variety, Dip. and $5; 2d do, 3. Best 4 varieties of good plums, 6 specimens each, 3; 2d do, 2. Best 12 plums, choice variety, 2; 2d do, Trans. Best seedling plum, with description, Dip. and 5.

Nectarines.—Best and largest number of good varieties, six specimens each, 3; 2d do, 2. Best 12 specimens of any good variety, 2; 2d do, Trans.

Quinces.—Best 12, of any variety, $3; 2d do. 2; 3d do, Trans.

Grapes.—Best and most extensive collection of good native grapes, grown in open air, $5; 2d do, 2. Best 3 varieties of native or foreign grapes, grown under glass, 3 bunches each to be shown, 5; 2d do, 2. Best dish of native grapes, Trans.

Watermelons.—Best specimens of any variety, 3; 2d do, 2. Best collection of watermelons, 3.

Muskmelons.—Best specimens of any variety, 3; 2d do, 2. Best collection of muskmelons, 3.

Cranberries.—Best peck of domestic culture, 8; 2d do, 5.

To be accompanied with a full description of the manner of cultivation, nature of soil, &c.

Any premiums may be withheld, in the discretion of the committee, if the samples exhibited are not worthy of a premium.

The fruit exhibited for which premiums are awarded, to be at the disposal of the committee.

No person can receive but a single premium on the same fruit.

Twelve volumes of Downing, common edition, and twelve of Thomas' Fruit Culturist, will be awarded by the committee in their discretion, for choice fruits not enumerated.

FOREIGN FRUITS.

For best exhibition of each variety of Fruits named in the above list by persons out of the State, Small Sil. Med. and Trans; 2d do, Downing or Thomas

Volumes of Downing or Thomas will be awarded by the judges in their discretion, for choice fruits not enumerated.

VEGETABLES.

12 best stalks of celery, $3; 6 best heads of cauliflower, 3; 6 best heads of brocoli, 3; 12 best white table turneps, 3; 12 best carrots, 3; 12 best table beets, 3; 12 best parsneps, 3; 12 best onions, 3; 6 best heads of cabbage, 3; 12 best tomatoes, 3; 2 best purple egg plants, 3; 12 best sweet potatoes, 3; best half peck Lima beans, 3; best half peck Windsor beans, 3; best bunch double parsley, 3; three best squashes, 3; largest pumpkin, 3; 12 best ears of seed corn, 3; best half peck of table potatoes, 3; 2d do, 2; best and greatest variety of vegetables raised by exhibitor, 5.

Discretionary premiums will be awarded on choice garden products not above enumerated.

STOVES NO. I.

Best cooking stove for wood fire, Sil. Med.; 2d do, S. Sil. Med. Best cooking stove for coal, Sil. Med.; 2d do, S. Sil. Med. Best cooking range for families, Sil. Med; 2d do, S. Sil. Med. Best furnace or other apparatus for warming house—economy of construction and consumption of fuel, and security to premises, to be taken into consideration, Sil. Med.

STOVES NO. II.

Best ornamental parlor stove, Sil. Med; 2d do, S. S. Med. Best hall stove, Sil. Med.; 2d do, S. S. Med. Best sample of hollow ware S. S. Med

SILVER WARE, CUTLERY, AND BRITANNIA WARE.

Best exhibition of silver ware, Sil. Med. Best exhibition of table cutlery, American manufacture, Sil. Med.; 2d do, S. S. Med. Best exhibition pocket cutlery, American Manufacture, Sil. Med.; 2d do, S. S. Med. Best specimen of silver ware with agricultural designs, suitable for premiums, Sil. Med.; 2d do, S. S. Med. Best specimens of argentine and britannia ware, Sil. Med.; 2d do, S. Sil. Med.

GRAIN, FLOUR, AND SEEDS.

Best sample winter wheat, not less than one bbl, $5; 2d do, 3. Best sample spring wheat, 1 bbl, 5; 2d do, 3. Best sample rye, 1 bbl., 5; 2d do, 3. Best sample oats, 1 bbl., 5; 2d do, 3. Best sample barly, 1 bbl., 5; 2d do, 3. Best sample Indian corn, 1 bbl., 5; 2d do, 3. Best sample buckwheat, 1 bush., 3; 2d do, 2. Best sample flax seed, 1 bush., 3; 2d do, 2. Best sample hops, not less than 25 lbs., 5; 2d do, 3. Best sample timothy seed, 1 bush, 3; 2d do, 2. Best barrel flour, S. S. Med.; 2d do, Trans. Best sample of newly introduced grain, valuable to the farmer, not less than 1 bbl., 3.

Samples of grain and seed in all cases to be deposited in the Museum of the Society.

For the largest and best variety of samples of Farm Crops, cultivated and raised on any *one* farm, tastefully arranged and exhibited on a wagon or cart, $10; 2d do, 5; 3d do, Sm. Sil. Med.

The exhibitors to present a certificate to the committee that all were raised on the exhibitor's own farm.

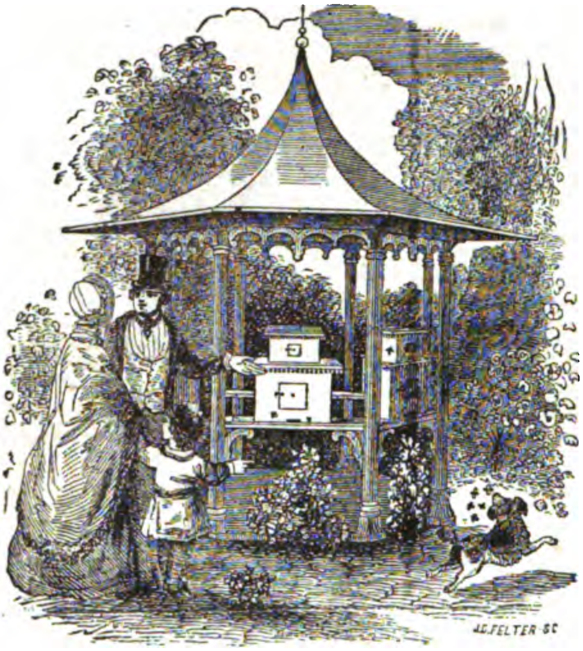
SALE OF IMPROVED STOCK AND IMPLEMENTS.

At the shows of the Society in 1848 and 1849, demand for the purchase of improved animals and implements having been very extensive, the Executive Committee, with a view of facilitating their sale, will open a Register for such animals and implements as the owners may desire to sell, and which they will offer for sale at the Show in September next.

Farmers are desired to communicate freely with the Secretary, and any aid he can render them in procuring choice seeds, valuable implements or stock, will be most cheerfully performed, so far as in his power.

B. P. JOHNSON, *Sec'y.*

State Agricultural Rooms, Albany, Feb'y, 1850.



BEES AND BEE HOUSES.

Eds. Genesee Farmer :—I have been a subscriber to your paper for the past year, (and this day have subscribed for the present year,) and am much pleased with the perusal of the same ; but I am somewhat disappointed that it does not speak more on the subject of Bees, and the best method of raising and treating them. As there are many within the bounds of your wide circulation interested in this subject, will you be so kind as to inform your subscribers in regard to the best way of managing ; or, will some of your correspondents give their views on the subject, and oblige one who has just begun to keep bees ? Sarah S. Sargeant.—*Buffalo, April*, 1850.

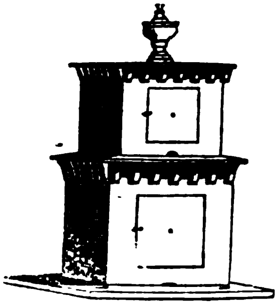
We are gratified to be able to inform our correspondent that T. B. Miner, the author of the *American Bee-Keeper's Manual*, one of the best books yet published, has promised us a series of articles on the subject, and we think we may say that Mr. M. is one of the most intelligent bee-cultivators in the world. In preference to giving any remarks of our own, therefore, we await the receipt of these articles, the first of which we shall undoubtedly be able to give in the July number ; in the mean time, we give an engraving of a bee house, and a description from the *Manual :*

"The above engraving represents an ornamental bee house, from an original design, executed expressly for this work. It is not intended for general use, but as an ornament to lawns or flower gardens. This is the first design of this nature that has been laid before the public, to the best of my knowledge. In all the various works on the honey-bee, published in the old world, I find nothing but the ordinary bee stands of ages past, or simple sheds of no more beauty than a pig sty or a hen roost. That such a structure would truly be an ornament to the flower garden, every one will admit. Why, then, should such bee-houses not be erected ? The cost will not be much. Thirty dollars will suffice to cover it.

"It will be perceived that the accompanying cut represents an *octangular* building ; that is, one having eight angles or sides. This affords accommodation for eight hives, or one to each angle. The height should be sufficient to allow a person to walk under the lower extremety of the roof with facility, and no higher ; consequently the posts should be about seven feet long. The roof should project over beyond the posts two feet, at least, in order to shade the hives during the heat of the day. The style of architecture may vary according to the taste of the owner ; yet the style of the foregoing cut is not unbecoming, by any means. Instead of having a floor, as is here represented, the posts may be inserted in the ground about two and a half feet, and the area within the posts may be graveled, so as to have a neat and tidy appearance. The portion of the posts placed in the ground should be left untouched, and as large as possible. These posts may either be turned, as they appear in the cut, or they may be boxed in, and made with suitable mouldings to look very well. If they be set into the ground, they should be of some kind of durable wood, and the ends to be put below the surface ought to be charred with fire, to prevent decay.

"With box-columns or posts, the style of architecture should be changed. A cornice should be run around the structure ; a dental cornice, perhaps, would look well. Every builder, however, will know how to give the best effect to the general appearance of the structure. If the posts be not inserted in the ground, let the floor be laid, and ordinary joists measuring three or four inches will do for the columns, if boxed in. In this case it will, perhaps, require some support to prevent the structure from being blown over in a gale. Three or four posts sunk into the ground even with the floor, and made fast thereto, would be all that is necessary.

"The two hives represented in the foregoing cut of bee house, are intended to represent my equilateral hive, as shown in engraving. These hives have a beautiful appearance, and if surmounted by a wooden urn, handsomely turned, the decoration would be complete. They rest on pins or legs, as before described, during the spring and summer, and in the winter they are let down, and the openings in the front and rear are used. The general rules for the management of bees in other hives apply to these with the same force. One great advantage in an open apiary of this nature is, that it affords the least possible facilities for insect breeding. Every part is exposed, and the broom or the brush applied once a week, thoroughly, will root out every vestige of moths, spiders, wasps, &c."



We have a number of the *Bee-Keeper's Manual*, and can therefore furnish copies to those desirous of obtaining the fullest information on the subject. We will also give information in relation to the hives.

A CHAPTER ON FOWLS.

We never had much faith in the laying qualities of the large breeds of fowls. In a wild state, the larger birds lay but few eggs compared with the smaller ones. The *Polands* were always our favorites, and we still think they are unsurpassed for laying; and for beauty, to our fancy, they are unequalled. Their graceful form, their jet black pulmage, shaded with a beautiful metallic green, and their snowy top-knots, make them, to our notion, the *beau-ideal*. But they must be pure; for if crossed, they are a miserable fowl. In order to test the matter for ourselves, about a month since we procured a pair of the *Shanghae* fowls. Dr. Bennett, author of the "Poultry Book," says—"this variety of domestic fowl is, in my estimation, one of the *very best* known in America." They are scarcely six months old, and the cock weighs 8 lbs. 7 oz., the pullet 6 lbs. 5 oz. To our surprise and satisfaction the pullet has laid nearly every day since she came in our possession. They resemble in almost every respect the Cochin China, an engraving of which we give from *Browne's American Poultry Yard*, except that they are feathered on the legs. These fowls were imported from Shanghae in China, and coming from the extreme *north* of that country, they will undoubtedly prove hardy in our climate. We shall have their portraits taken as soon as they get a little older. They are extremely docile, and the cock shows quite a disposition to become a pet.

COCHIN CHINA FOWL.

We have also eggs of the *Cochin China*, that will be hatched in a few days. Dr. Bennett says, "they are no more expensive to keep than the common hens, while they are about twice as large, better layers, less destructive to gardens, more docile and tractable, and very tender of their young. Their meat is fine and highly flavored. They usually commence laying at from six to seven months old. Their eggs are of a reddish or mahogany color, and of delicious flavor."

In contrast with these monsters we give the universal favorite, the little Bantam—small, to be sure, but important and consequential as the largest of the feathered tribe. He disdains to acknowledge as superior those whose only claim to superiority is a more portly frame—proclaims his equality, at least, in every motion, and declares in unmistakable language, that "the *soul's* the standard of the man."

These little fellows originated in Bantam, a town and kingdom in Java, famous for its pepper trade. They are of small size, lively and vigorous, exhibiting in their movements both stateliness and grace.

Messrs. Editors:—I have just been reading a very able work, entitled "The American Poultry Yard," by D. J. Browne, in an appendix to which (written by Samuel Allen,) the average weight of Cochin China, Malay, and Dorking cocks, is stated to be *seven pounds*. As I have been extremely anxious to procure some of these celebrated varieties, on account of their great size, this statement surprised me not a little, inasmuch as I am already the lucky owner of eleven fowls, the weights of which are as follows:

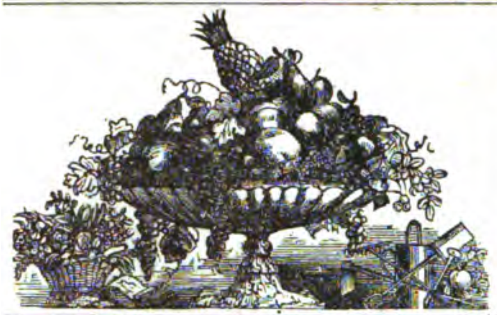
				lbs.	*oz.*
A cock,	8	months	old,	9	5
hen,	3	years	"	7	13
"	7	"	"	7	9
pullet,	8½	months	"	6	5*
"	9½	"	"	7	2*
"	9½	"	"	6	5*
"	8	"	"	6	10*
"	9	"	"	6	2*
"	7½	"	"	6	5*
"	6	"	"	5	10†
"	5	"	"	5	2†

* Some of these will outweigh the old hens before a great while.
† These two were hatched late and of course are not near grown.

I was induced to weigh them by the statement of Mr. Allen, and to send you a brief description of them, because they so greatly exceed in size the famous chickens named by him. Is not Mr. A. mistaken in limiting the weight of Malay and Cochin China cocks to seven pounds?

I purchased my two old hens and cock that weighed 8½ lbs. last year, from an old man who brought them from Northampton county, in this State. I can trace them no further. From their appearance and character I judge them to belong either to the "Bucks County Breed," or the "Boobies," mentioned by Dr. Kittridge. Their general color is black, dotted with white; sometimes entirely black and sometimes grey. When first hatched, they are never black or even dark, but invariably light colored—much resembling young *Creoles*. Unlike any other large fowls I have ever seen, *they feather early*, being completely covered at six weeks old. Their legs are dark, combs double or single, combs and wattles usually large, some with small "top-knots" or crests, but mostly without them. They do not breed evenly, some growing considerably larger than others. They lay well. Last year the youngest of my two hens, then two years old, laid 109 eggs; the older, then six years old, laid 78. Of course pullets would have laid much better. All my hens are laying now, except three—the two old ones and the youngest. I have no doubt if well fed, warmly housed in winter, and their nests frequently broken up to prevent their becoming broody, they could be made to yield each 150 eggs a year. They are said to sit well, but do not cover their young as often as good mothers should. What is their name? D. T.—*Northumberland, Pa., Feb'y*, 1850.

We are unable to give your chickens a name; but they are undoubtedly a cross between one of the large breeds and some smaller variety, perhaps the common fowl. The fact that they "*do not breed evenly*" indicates this. Nothing goes farther to establish the distinctness of a race than uniformity in size of chickens of the same age. They are certainly very respectable for size and for their laying qualities.



Horticultural Department.

EDITED BY P. BARRY.

We have been struck with a few facts in regard to the planting season just closed, that indicate, to some extent, the changes that are taking place in the public mind on certain points in fruit culture; and we think it not amiss to take note of them now, while fresh in our memory.

The *first*, is a remarkable falling off of the damand for *new* varieties, especially among amateur cultivators. A few years ago — indeed, we need hardly go farther than a single year — a person having a small lot of 50 by 100 feet to plant, would order a dozen varieties of the newest, rarest, and most extraordinary to be found noticed in all "the books." These he *must* have; our good old sorts, with characters "beyond suspicion," would not by any means answer his purpose. He had just read an account of an extraordinary "*seedling cherry,*" produced by Mr. A., in one part of the country; a wonderful seedling apple, by Mr. B., in another; a no less remarkable pear, by Mr. C., somewhere else; and an apricot and a plum that, in spite of the curculio, bore extraordinary crops, and out of the culture of which little fortunes had actually been made. These were just the articles for his garden, he thought, and he got them *if he could.* This was something like the way people were getting along in fruit tree planting, when various pomological conventions were held, to which planters everywhere looked for some advice in the matter of selecting varieties. These conventions, it will be remembered, recommended for *general cultivation* mainly the old, well known sorts, whose characters were fully established. This at once changed the current of taste among inexperienced planters. Hence it is that we see in the nurseries here over 100 new or rare varieties of the pear, from which scarcely a tree has been dug, unless for a nurseryman or an experimentalist, while for the old sorts of established merit the demand has been quite equal to the supply. This is as it should be. People who have small gardens that they wish to stock with really choice fruits for their own use, have no business with any but well tested and generally approved varieties. Neither should those who plant fruit gardens or orchards for the supply of the market, meddle with new or little known varieties. Nurserymen and pomologists alone should cultivate and test these; and it is their duty and a portion of their business to do so. The conventions have therefore accomplished some good, we might say a *great deal* of good, in this one simple particular, of recommending for general culture, varieties upon which nearly all the world had pronounced a favorable verdict.

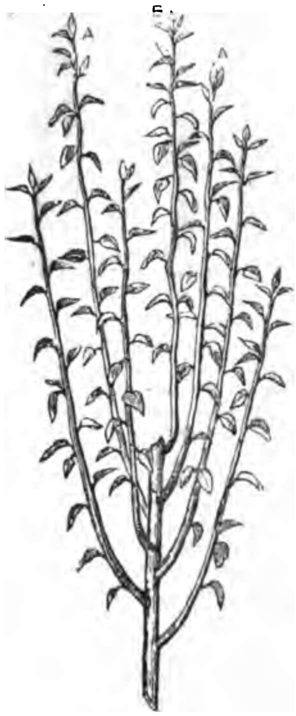
The *second* fact we wish to note in reference to the planting taste of the past season, is the unusual demand for DWARF TREES. A few years ago, nobody sought for dwarf trees. Scarcely anybody knew of such things. The *tall standard*, with a bare trunk of six or eight feet high, was the only form of trees recognized for all sorts of circumstances. The little village garden of 50 by 20, or the orchard of twenty acres, were placed upon precisely the same footing in this respect. The consequence was, that small gardens were entirely unavailable to fruit culture beyond a few gooseberry or currant bushes; and thousands and tens of thousands of our citizens in all parts of the country, who will in a few years have charming little gardens of dwarf trees, were quite excluded from all the pleasure and profit which this interesting culture cannot fail to yield. People everywhere in our cities and villages, who have but a small lot of ground to cultivate, are very naturally delighted with these trees so admirably adapted to their circumstances. *Old people*, too, who could not reasonably hope to reap the fruits of standard trees that never yield in less than six to ten years, are planting dwarfs, because in two years at most they may gather their fruits. Thus, two large classes of persons heretofore quite excluded from fruit culture, are now brought in, and are in fact the most active. Whole orchards, too, of these dwarf trees, pears in particular, are being planted for the growth of fruit for market; and when we consider that not one out of a hundred will die in planting — that 300 to 500 may be put on an acre of ground — and that in two or three years at most they begin to bear — we do not see why they will not be profitable. Many are also very judiciously filling the spaces between standard pear and apple trees, with pyramidal pear trees on quince stocks, considering that at the end of twelve or fifteen years, when their standard trees have attained good size and have come into full bearing, and the dwarf trees begin to be in the way, they can very well afford to cast them off. This system of managing orchards is extensively practiced in France, where orchards and fruit gardens are models for all the world. It cannot but be highly advantageous in this country, at least in all the older districts, where land is valuable and fruit growing an important pursuit. An orchard of five acres, for example, will, at thirty feet apart each way, contain but 242 standard trees. — Among these we can put in 726 dwarf or pyramidal trees at fifteen feet distance all around. Until the eighth or tenth year, the standard trees will yield nothing worth reckoning upon; but from the third or fourth year, the dwarfs will yield a considerable income, and by the seventh or eighth year they will produce not less than from $1 to $5 worth per tree. When the standards require more ground, a part or the whole of the others may be removed, as the case will require. This gives to pear orcharding a very different aspect from that in which it usually appears, by reducing the period at which the income begins, nearly or quite ten years — equal to one-fourth the time that any one now, upwards of twenty-one years of age, can expect to live.

The planting of standard trees of any sort in small gardens, will unquestionably cease within a few years, as soon as people generally have acquired a little more information and experience in the different departments of tree culture, and trees suitable for it more extensively propagated. The pyramidal system of training the apple, the pear, and the cherry, is so simple and beautiful, that it must meet with universal favor among the proprietors of small gardens. The peach and the apricot can be kept small enough for any moderately sized garden, by having them low headed and properly shortened in. Where very small trees are desirable, they may be worked on plum stocks. A few years ago, when we commenced the introduction of these trees, many persons who pretended to know something about tree culture, but in reality knew nothing, raised a cry against dwarf trees as being "short lived and worthless;" but we hear nothing of that sort now. People begin to understand that if they don't live a hundred years, they bear early, look very well in their gardens, and are easily replaced when they die out by old age.

SUMMER MANAGEMENT OF PYRAMIDAL TREES.

No matter how well trees may have been pruned before the growing season commenced, a little attention during summer is absolutely necessary. It is impossible for the most skillful pruner in existence to cut exactly, in all cases, at the proper point, or at least at the point that would induce the precise development of buds and branches that he wants; certain buds will push with greater or less vigor than he had reason to expect, from their appearance and position, and thus the balance proposed to be maintained is broken. In such cases we must, at the proper moment, when growth is going on, resort to what is called pinching — nipping off with the finger and thumb (a sharp knife is better,) the point of such shoots as are exceeding their due relative proportions. The leading shoot, that is intended to constitute the main trunk of the tree, should always take the lead; none of the lateral or side shoots should be permitted to dispute its supremacy. The annexed cut is intended to illustrate a case of this kind. B is the leading shoot, and A, A, side shoots, both of which have taken a more sturdy development than is consistent with the welfare of the leader and the pyramidal form of the tree. If A, A, had been timely nipped, the branches below them and the leader above would all have had their just proportions. We therefore point this out as an item of very great importance in growing pyramidal pears. When the tree is left to itself during the whole season, and in the fall we find it grown so out of proportion as the annexed cut, a great deal of severe pruning is necessary to restore the balance; these strong branches next the leader have to be cut to one eye perhaps, and the whole pyramid is injured and considerably retarded. What we have said has reference mainly to the leading shoot and those in its vicinity; but it applies with exactly the same force to all the main side branches, which may be considered as so many leading shoots, and will require the same care and treatment.

There is another evil that must be remedied by pinching: for instance, when we cut a leading shoot or a side shoot, expecting that all, or nearly all, the buds below the point where we cut, to break and make side shoots or spurs, and, contrary to our expectations, only two or three at the extremity grow, leaving the others dormant. To make these lower buds break, we must pinch those above them at a very early day, This checks the flow of sap and concentrates it in the lower parts, causing the buds there to break. This is the way to have all branches covered with fruit spurs their whole length. Pyramidal pear trees on *quince* stocks are naturally so fruitful, generally speaking, that pinching to form fruit buds and spurs is rarely necessary. The principal point to keep in view is the *form*. On pear stocks, however, both objects must be kept in view. All we have suggested on this point will be necessary in both cases. Pinching to promote fruitfulness consists in pinching or breaking off the ends of the small side shoots, stopping their elongation and turning the sap into the formation of fruit buds. This is practiced continually as growth advances and the condition of the trees render it proper, principally through July and August.



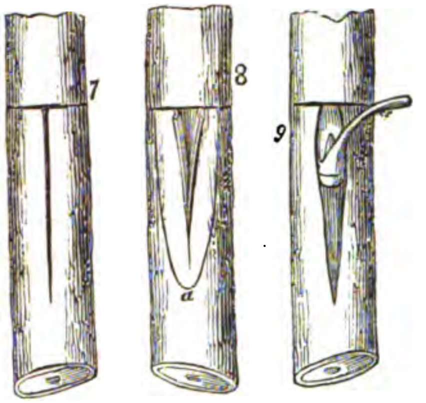
This pinching to promote fruitfulness requires more skill and practice in pruning, and much more physiological information respecting trees, than any other pruning. If done too soon or too severely, the object is defeated by having the buds break into new shoots, instead of forming fruit buds, thus requiring pinching and pinching again, before the object is attained. Vigorous and feeble growers require different degrees of pinching, and require it to be done at different seasons. Different soils and climate all affect this matter so much that no general rules can be safely adopted. Some rank growers on free stocks cannot be brought into bearing by this means, until the pinching and pruning are so severe as to weaken to some extent the whole force of the tree. Root pruning has the same effect, and in such cases is quite necessary; but this must be done in the fall, when growth has terminated.

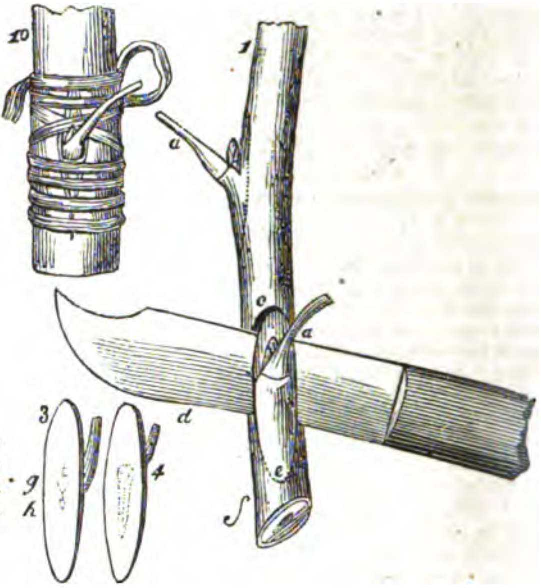
Thanks. — We are under obligations to **Thos. Hancock**, Esq., of the Ashton Nurseries, Burlington, N. J., for a packet of seeds of the "Round Borneo Citron," a splendid variety, that took the Pennsylvania Horticultural Society's premium, last September.

BUDDING AND LAYERING.

These two principal operations for the multiplication of plants, will commence this month. Roses can be budded as soon as ripe well formed buds can be got, and the bark on the stocks will rise freely; indeed these are the two conditions indispensible to the budding of all sorts of trees and plants. Roses and other things that we wish to start and grow this season, can be budded, no matter how early—the earlier the better; but the buds of fruit trees, that in our climate should not grow the same season they are inserted, should be delayed till there is no danger of this—say last of July and early in August, for plums and cherries; and August and September for all others.

Many of the recent subscribers to this journal are solicitous for information on the practical part of it; and to meet their wishes, we give the following illustrations. Remembering the conditions we have alluded to, proceed as follows:



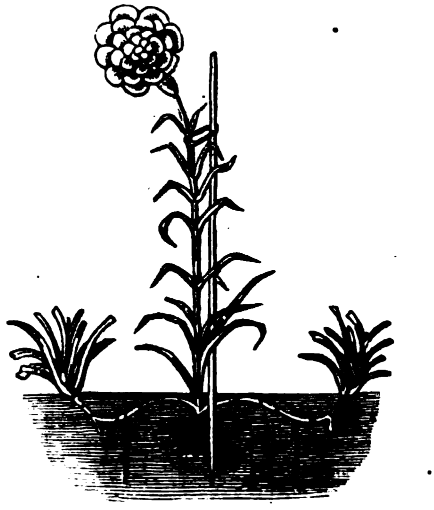


BUDDING.

Take a young shoot (fig. 1) with good ripe buds, and strip the leaves off, leaving part of the leaf stalk as at *a*. The shoot is held in the left hand and the knife in the right; the lower part of the blade, say at the point *b*, is placed on the shoot at *c*, one-half to three-fourths of an inch above the bud; the thumb of the knife hand ests on the shoot at *f*, the lower extremity of the bark intended to be removed with the bud; the knife is then drawn towards you obliquely, parallel with the shoot, smooth and level, so that the bark and a very thin portion of the wood will be taken off. In cases where this wood is firmly attached to the bark, it is better to leave it; but where it is loose, or partly so, it may better be removed, which can be done by putting the edge of the knife under the wood, between it and the bark, and lifting it up. Care in doing this is necessary, to avoid pulling out the root of the bud, as in that case the bud is lost. Fig. 3 is a good bud; *g*, root of the bud, and *h*, root of the leaf. Fig. 4 represents a bad bud, always thrown away. Fig. 7 shows the stock cut in the form of a T, to receive the bud. Fig. 8, the bark raised with the ivory or bone handle of the knife. Fig. 9 represents the bud in its place. The top of the bud is always cut square, to fit the cross cut on the stock. Fig. 10 shows the bud tied with bark or orther material. The whole operation should be done neat and quick.

LAYERING

is a mode of propagating trees and plants by bending down the branches, generally, but not always, of the current seasons growth, and covering them at the point where we wish to produce roots, with two or three inches of earth. Roses, carnations, and a multitude of ornamental trees and plants, grape vines, quinces, gooseberries, &c., &c., are propagated with ease and certainty in this way. The annexed cut of a carnation layer conveys a very clear idea of the operation in general.



In the case of the carnation, the stems to be layered (usually done just as they go out of bloom,) are stripped of the leaves as far as it will be necessary to imbed them in the ground; the ends of the leaves are also cut off an inch or so; the knife is then inserted below a joint, and the stem cut half through: the knife is then drawn upward, slitting the stem to the next joint above; the small portion remaining below the joint where the incision was made, is cut clean off to the joint, and the stem is bent into the ground, and pegged down with a crooked wooden peg, to keep it in its place and to keep the cut open; the earth is drawn around it, carefully placing it in an upright position; a good watering will then finish. For all layers the soil should be well prepared, and light and sandy. All ordinary layering is performed on the same principle. In two or three months, most plants will have rooted and be ready for transplanting. When a branch is layered, it is in most cases well to cut off a portion of its top, particularly if growing fast, as it checks the flow of sap to the point, and hastens the granulation and formation of roots at the cut. Where the shoots are soft and tender, great care is necessary to avoid breaking them off, and in such cases it is sometimes better to make the cut on the upper side, and twisting the branch a little to keep the cut open when pegged down. Roses are usually layered after they have gone out of bloom, and the other shrubs, &c., when the wood is sufficiently grown and matured to work well.

GRAPES AND PEARS.

MR. EDITOR:—Allow me to state a fact in relation to pruning the grape, which argues strongly in favor of the thorough use of the knife. GUSTAVUS CLARK, Esq., of Clarkson, has recently practiced cutting *close* to the main branch every side shoot. He suffers two or three shoots to grow from the root, training them in different directions and tying to stakes four or five feet high. His crops of fruit are splendid — equal to any I ever saw. New shoots spring along the whole length of the old vine, on which grow the rich clusters. This fact should encourage timid pruners to a bolder and more thorough application of the knife.

Have you ever eaten a good Summer Franc Real pear? I have a tree of that variety — and genuine too — which has borne fruit three years, and not a specimen but proved worthless. Of the Duchess d'Angouleme, which has fruited the same length of time, the same remark is true. Not one pear have I had that was even tolerable. In the same soil, B. Diel, Ananas, Louise Bonne de Jersey, Bartlett, and White Doyenne, have produced delicious fruit, and B. Brown very good, H. P. N.—*March*, 1850.

WE have eaten the Summer Franc Real, not *first rate*, but *second* at least. You may have let it hang too long; it ought to be picked soon. Duchess will be all right yet; *wait a little.*

ANSWERS TO CORRESPONDENTS.

HEDGES.—(F. A. R.) We suppose you mean the common native thorn, which makes a good hedge. *Locust*—Put the seed in scalding water, and let it remain for 24 hours before sowing. Sow in drills three feet apart, and three or four inches apart in the drills. At six feet apart, about 1200 will plant an acre, and a couple of pounds of seed will produce plants enough. The Honey Locust will make a good hedge in four years from the seed. The seeds should, if possible, be all sowed in April or May — June will do. Ditches by hedges of this sort are not only unnecessary, but improper, subjecting the hedge too much to drouths.

OLEANDERS. — (Marcellus.) Don't use arsenic to kill worms in the pots; lime water is safer and better. We would advise the ladies to plant their Oleanders out in the garden during summer; there they will form fine new roots and get rid of worms.

NAMES OF FLOWERS.—(O. A. A., Hemlock Lake.) We have no doubt your seedsmen have acted honestly. The *Gilia tricolor* and *Lupinus Cruikshankii* are well known annuals; but you will not find them, or mere *varieties* of any species, in botanical works.

PRUNING.

MR. EDITOR:—I have recently visited many fine gardens and orchards in different parts of our country, and in no one thing am I so much disposed to find fault, as in the gross neglect to *prune fruit trees.* The long, thrifty shoots, are allowed to extend themselves to an unnatural length, and the lower branches become exhausted, sicken and die—the tree looses its symmetry and beauty; and if it produces any fruit worthy of its scion, it is in spite of bad usage. Not only this, but many seem to think that pruning a young fruit tree sets it back just to the extent of the pruning, and consequently they thus lose, as they suppose, a good share of a season s growth.

You well know that the orchards of our country suffer severely for the want of judicious pruning, and I would inquire if there is not some more efficient way to arouse the attention of our farmers to this all important subject? I am glad to see that this neglect is no fault of the Genesee Farmer. WAYNE.

THIS is quite correct. From actual observation we know that a great majority of all bearing fruit trees in most parts of the country, are suffering seriously for want of a little pruning; but the matter is receiving more attention.

EFFECTS OF THE WINTER ON VEGETATION. — The frequent frosts we had towards spring, when the snow was gone, had an injurious effect on strawberries and other plants with small roots near the surface, not protected; they have been drawn out. Excepting this, we have seen no ill effects of the winter; no trees, not even tender ones, are winter killed in the least. The *Deodar Cedar* and *Auracaria* have stood quite safe without protection. The *Cryptomeria*, very slightly protected, quite safe, and will prove hardy. *Taxodium sempervirens* had its foliage burnt off, but the wood and buds are uninjured. Abies *Smithii* and *Douglassi*, *Picea pinsapo*, *Pinus excelsa*, *cembra* and *pumila*, all quite hardy. *Mahonia aquifolia* stands the winter well, retaining its foliage fresh and green; it is now finely in bloom, and is a beautiful lawn shrub. *Spiræa prunifolia* and *Budolea Lindleyana* are as hardy as can be desired.

We see by the Horticulturist for May, that all these plants have stood the winter at Newburgh, some unprotected, and others covered with boards.

PROCEEDINGS OF THE SECOND CONGRESS OF FRUIT GROWERS, convened under the auspices of the American Institute, in the city of New York. 1849.

THE proceedings of this body have at length appeared in a very handsome, well printed pamphlet, of upwards of 100 pages; and we are indebted to the President of the Congress, Hon. M. P. WILDER, for a copy. It is impossible for us to say anything about it, or to give any extracts from it, until next month, as the whole of this number of the Farmer was ready for the press before it came to hand.

THE SEASON.—Our spring here has been unusually cold and backward; up to the middle of May we had rarely a warm spring day; but it has been a fine season for planting, and all have had a long and favorable time for completing their improvements. The weather now, May 16th, is fine, and fruit trees are loaded with blossoms, promising a most abundant crop. The thinning process will very generally have to be resorted to, if no untimely frost or other accident occurs after this date.

Ladies' Department.

We have promptly forwarded to all applicants the "*Floral Rake*," though we fear some of them will never reach their destination, on account of the distance some of our friends reside from the regular express routes. Though wisely making no attempts at rhyme, many of our lady correspondents are truly poetical :

Eds. Genesee Farmer :—That rake, if you please, sirs, —shall "use it without gloves," receive it thankfully, and send you a boquet in return. Hoping the mignionette will have a sweeter fragrance and the petunias a richer bloom through its agency, I ask you to send it soon. N. A. S.—*Ripley, Brown Co., Ohio.*

Was it not for the advantage our near readers would have over those more distant, we would offer *Downing's Flower Garden, Parsons on the Rose,* and other good books, as a premium for the best boquet sent to our office during the season. But as we can not at present make this offer so as to be available to our friends generally, we would urge the formation of Horticultural Associations in every city and village and county of our country ; and the offer, by such associations, of similar premiums. The labor will be light, the expense little ; and in return, flowers will spring up where grow the thorn and thistle—homes will be made more pleasant, eyes more bright, and hearts more happy. The cheeks of loved ones will catch the bloom of the rose, the sweetness of the honeysuckle. True, flowers cannot furnish food for the body ; but, shall the body be fattened, and the mind and the affections starved ? Shall we work for the body always, and never for that which distinguishes man, and makes him greater than the brute ? Is it right that we should eat, work, and die, like the ox ? Is it not as sinful to stultify and starve the mind as the body ?

Few realize the injury they do, and actually suffer, by depriving themselves and their children of the pleasure afforded by the cultivation of flowers—these children of the field. A farmer and his wife, in easy circumstances, not a thousand miles from this, had an only son, who, much to the sorrow of his parents, had imbibed a desire "to go to sea." He had read of the raging billows—of strange people in strange lands—of orange groves—of lands where the pineapple grows—of exciting scenes in capturing the whale,—and his whole heart seemed set on seeing foreign lands and living on the ocean wave. In vain his parents endeavored to interest him in the operations of the farm. He worked, to be sure, but his heart was not in the work. It was a drudgery, and he longed for the time when he could bid farewell to parents and home, and see the world for himself. At that time a Horticultural Society was established in the county, and at the first exhibition fruits and flowers of the finest kinds were displayed, many of them brought from a distance, and such as had never been seen in the neighborhood before. Our young friend attended this exhibition, and looked at the display with wonder and surprise. Nothing astonished him more than the lively, joyous interest, those engaged took in the arrangement of their several collections. While he had looked upon everything connected with the cultivation of the soil as a heartless drudgery, here even the ladies appeared to engage in it with a zeal and a pleasure he could not account for. One class of flowers particularly attracted his notice ; he procured a few plants—planted them and nursed and watched them, and waited anxiously and impatiently for the coming bloom. In due time his plants blossomed, and their extraordinary beauty repaid him for his toil. He carried off the prize at the next show. Elated at his success, and the pleasure it afforded him, he increased his collection—forgot all about the sea and strange lands—and became one of the most enthusiastic and intelligent cultivators, and the most successful competitor for prizes at the shows of the Horticultural Society. He now takes hold of farming in earnest—aims at the finest crops ; and the parents reap in the society, perhaps the salvation of their son, and in the better management of the farm, the happy influence of flowers on the young mind, and *the benefits of Horticultural Societies.*

BUTTER MAKING.

As this is the season for making butter, I think it not inappropriate to write a little on that subject. Butter making is a business that justly occupies the attention of the farmers of this country at present; and although each one that has published his process has a somewhat different manner, yet they are all the best—all get the premium. One churns the whole milk, one skims sweet, another skims sour ; and the conclusion to be drawn from all this is, that in this respect we are like all other nations that have a surplus of butter. The Irish and Dutch have the reputation of making the best butter ; yet they are as unlike as they can be in their manufacture. Even in different parts of Ireland, their management is wholly different ; in one part they churn the whole milk, in another they skim as soon as changed, saying that if the milk turns thick before it is skimmed, the cream will turn soft and consequently the butter will be soft and will not keep. I had in my employ the past season, an Irish girl from the south of Ireland, who has worked in an extensive dairy in that country. She says they use more salt in their butter for transportation than they do for home consumption, and that their butter is never worked after it is salted, but is finished and packed in firkins. I intend to pack a pot next June, exactly after her directions ; but I do not suppose it will be fit for anything but soapgrease. In Johnston's Agricultural Chemistry, I think the Dutch are mentioned as churning the whole milk, but let it stand until it is so thick that it will hold a stick up, with which they stir it. A Farmer's Wife.—*Saratoga Co., N. Y., May,* 1850.

Exercise.—Throughout all nature, want of motion indicates weakness, corruption, inanimation and death. Trenck in his damp prison, leaped about like a lion, in his fetters of seventy pounds weight, in order to preserve his health; and an illustrious physician observes: "I know not which is most necessary for the support of the human frame—food or motion." Were the exercise of the body attended to in a corresponding degree with that of the mind, not only would children suffer less from sicknes, and their lives be less uncertain, but men and women, and particularly men of learning, would be more healthy and vigorous, more happy in their domestic lives, and the better able to perform their duties. In fine, with propriety it may be said that the highest refinement of mind, without improvement of the can never present anything more than half a human being.

Youths' Department.

"SPECIAL MANURES."

The editors of the Horticulturist and the Boston Horticultural Magazine can not agree on the subject of "special manures." Mr. Downing takes the *pro*, and Mr. Hovey the *con* side of the question. The Magazine conductor insinuates that "the theory of special manures may answer very well for *beginners* in gardening, but every practical man knows" that it has no foundation in nature. To this the Horticulturist editor replies by copying extracts of a letter received from a member of the Albany Horticultural Society, giving an account of "several old White Doyenne (Virgalieu) pear trees, the fruit from which was nearly worthless, being *cracked*, *knerly*, and small." After the use of special fertilizers, these trees produced superb fruit, which took the premium in competition with the finest cultivated varieties in the city and county of Albany; and fruit from these renovated trees was exhibited at the Pomological Congress in New York, which was fair and beautiful. What Mr. Hovey will say to this evidence, we have yet to learn, as it only appears in the May number of the Horticulturist. For ourselves, we have so long believed in the theory of feeding a plant or tree on the constituent elements from which its whole weight and substance are formed, that we can not remember when we first began to learn and preach the doctrine. The distinguished Dr. Samuel Mitchell taught this theory in 1794, or before Liebig, Downing, or the writer was born.

The modern doctrine of special manures is about sixty years old; although there is evidence which leads us to believe that it was acted on, and in some degree understood, in the eras of Columela, Virgil, and perhaps by old Hesiod himself. The theory is substantially this: To organize the tissues and fruit of apple, pear, peach, and other cultivated trees and plants, the incombustible matter which appears as *ashes*, when their stems, leaves, and fruit are burnt, *are indispensable elements.* Hence, if the potash, lime, and other things which make *ashes*, be deficient in the soil, the defect will operate injuriously on the tree and its fruit. A soil may lack mold, or organic, as well as mineral matter; but as a general rule, the farmer has only to supply potash, lime, and bones, to secure the growth of fair crops. Thus one-third of the ash obtained by burning wheat, is pure potash; and nearly fifty parts of the remaining sixty-six are phosphoric acid. Hence, ground or dissolved bones are a special manure; so also are wood ashes and gypsum.

Those who have carefully read the articles on Agriculture in our Youth's Department, will be satisfied that it is possible to starve a tree or a plant, as well as a cow or a horse; and that there is very little sense in blindly giving a tree *manure* without knowing, or thinking, or caring whether we are giving just what the ground lacks and the tree needs, or whether we are supplying that with which it is already surfeited. The man who would wilfully shut his eyes and wander about the streets in darkness, would be entitled to very little sympathy, even though he should fall into the ditch. If science furnishes the means of ascertaining of what substances every tree and every plant is composed, and that some part of their composition is taken from the soil, and our common sense teaches us that unless the needed substances are in the soil the wants of the tree can not be supplied, and if science likewise furnishes us the means of knowing whether the required substances are in the soil or not—the man who, with these facts before him, clear and bright and invaluable as the noon-day sun, shuts his eyes alike to the light of science and the teachings of common sense, will be at best but a blind follower of the blind.

DIGNITY OF LABOR.

One of the editors of the Farmer was called upon to deliver an address before an Association of Mechanics and Farmers, mostly young men, on Franklin's Birthday. An extract or two may not be unprofitable to our youthful readers.

"Franklin had the greatest respect for those who render themselves useful, no matter how humble the occupation. And yet there are young men and women too, in our own country, who pride themselves on their ignorance of all useful and honorable employment—who boast their own uselessness, and glory in their own shame. The drones of society, they affect to despise those who furnish the luxuries on which they subsist; who by their own industry and skill provide for those dependent on them—cause the wilderness to blossom as the rose—build our cities, beautify our dwellings, and cover the seas with the heralds of commerce and civilization.

Let the young farmer or mechanic scorn every association that asserts his inferiority or his dependence, his inability to provide for himself, or to perform with credit his part in the great theatre of life; even though ostensibly formed for his elevation. Let the very imputation fire your soul with a lofty ambition. Show to the world by a proper self respect that you appreciate your station. Jehovah himself, the Great Architect of the Universe, might as well be despised for his mighty works, as that you should be lowly esteemed for your very usefulness. Unite economy and industry with decision of character, and with the ordinary blessings of Providence you can ensure competence—yea, respectability, usefulness and honor will be your reward.

How insignificant do those appear who boast only a *noble* parentage or a high sounding title, in comparison with one of nature's noblemen, like Franklin; the briar by the road-side would better compare with the tall cedars of Lebanon, or the spark from the electric machine with the lightnings of heaven. Let every one who admires his character and his success take at once the first steps in mental discipline.

Young man! are you suffering under the tyranny of an unprincipled master—look up! talent accompanied by industry, in this land, more than in any other, brings its sure reward. Remember that he whose birth we this night commemorate, suffered in this respect, all it is possible for you to endure. Remember Franklin the *poor apprentice*, and Franklin the *proud philosopher*. Have you become the dupe of the designing, are you depending on the promises of friends, or labor saving associations, or any thing short of your own well directed industry, for success in the world? Remember the fate of Franklin.—Depend alone on the strength of your own right arm, the force of your own genius. Have you been unwittingly led into a course of conduct that must end in injury to others, and disgrace to yourself? Institute a rigid self-examination, such as arrested Franklin in his course of folly."

Editor's Table.

We recently made a trip east—and a very pleasant one. Our journey brought us in contact with many of our friends—and we number in this list all who read the Farmer—particularly on the route of the New York and Erie Railroad. There may have been a time when farmers doubted the advantage of railroads to the agricultural community, considering them more beneficial to capitalicts than farmers; but that time, if it ever really existed, is past. The benefits of the New York and Erie Railroad to the southern tier of counties in this State, is felt no doubt by all, as it was expressed by every one with whom we conversed.

We were particularly interested in the large quantities of milk taken by this road to New York city, from Orange and some other counties. We have no means of ascertaing the quantities daily supplied, but we saw railroad trains, called "*milk trains*," and steamboats, loaded with thousands of cans of milk, and nothing else. This is contracted for in New York. Each farmer makes his contract with some wholesale purchaser, stating the number of cows he keeps, and about the quantity he can supply daily. The farmer then procures large tin cans, marking on them his own name and that of the person who purchases his milk. Along the line of the road "*milk depots*" are established, and all the seller has to do, is to fill his cans and have them at the nearest depot. The "*milk trains*" stop at each depot and take up the cans—the contractor being on hand at the arrival of the boat to receive them. The empty cans are returned in the same manner. The price paid the farmer is *two* cents a quart in summer and *three* in winter, (the purchaser paying freight.) The milk is retailed at three and four cents a quart. We suppose from the appearance of the milk on the tables in the city, that Croton water adds a little to the profit; but the New Yorkers have reason to be thankful that they can now get pure milk and water.

We came from New York in company with one of our subscribers in Orange county, who had been to the city to collect his account for milk for the last three months. He stated that but little butter comparatively is now made in the county, the farmers prefering to sell their milk; and less attention being paid to butter making, Orange county butter will ere long lose its well earned reputation.

We are much indebted for the agreeableness of our trip, to the kind attentions of Mr. Marsh, Secretary N. Y. & Erie Railroad, and Capt. Dakin, of the fine steamboat "*Ben Loder*," on Seneca Lake.

The present number completes the first half of the current volume. We are more than gratified that our efforts to furnish farmers with a paper at once cheap and valuable, and particularly to make the present volume superior to any of its predecessors, are appreciated in the most encouraging and substantial manner. From every quarter our friends are giving us the no unpleasant duty of adding new names to our already extended list. The Farmer has now a circulation larger than ever before, and it is still rapidly increasing. We would say, in answer to many inquiries, that that we can supply back numbers from January.

Patent Office Report—Part II.—The Report from the Patent Office, which is now in the hands of the printers, is divided into two parts. The first relates to Patents and Mechanical arts, and the second exclusively to Agriculture. Congress has ordered 130,000 copies of the latter printed and bound. It is expected to make a volume of some 600 pages. We give an extract from the document, in this number of the Farmer, and will copy from the Washington Republic "Suggestions for the Improvement of Agriculture," in our next.

L. G. Morris, of Mt. Fordham, N. Y., sailed for Europe in April last, for the purpose of examining the best herds in Europe, and purchasing such animals as he may consider a valuable acquisition to his present stock. He will attend the sale of Bates' herd, and return in September. His Second Annual Sale will be in October, particulars of which will be given through the Farmer. The Bates' sale was announced for the 9th of May.

Bee Moth.—A new method of preventing the ravages of the Bee Moth is given in the advertisement of Mr. Whalen, in this number. Mr. W. is the President of the Saratoga County Agricultural Society, and not a man likely to attempt to "humbug" the public.

Clinton County, (N. Y.) Agricultural Society.—We should have acknowledged last month the receipt of the premium list of this Society for the current year, and also an able address to the "farmers and friends of agriculture." We should judge from the liberal premiums, the ability of the address, and the number of our subscribers in the county this year, that the Clinton County Agricultural Society is one of the most efficient in the State. The officers are Elias A. Hurlburt, President; Peter Keese, Samuel H. Moore, S. V. R. Havens, Anderson Keese, J. S. Stetson, Z. C. Platt, Roswell H. Barber, John W. Bailey, A. J. Moses, John Dunning, Vice Presidents; Willetts Keese, Secretary; J. Battey, Treasurer.

Monroe Co. Agricultural Society.—A meeting of this Society for the adoption of Premiums to be awarded at the next Fair, the appointment of Judges, &c., was held at the office of the Farmer on the 7th May. We should have given some portions of the premiums offered, as requested, but found it impossible to obtain a copy from the Secretary.

The American Bird Fancier, by D. J. Browne, author of the "Poultry Yard," is a neat little work for the lovers of the feathered songsters, containing directions for rearing, feeding, and the general management of House and Cage Birds. Published by C. M. Saxton, N. Y.

Reapers.—We call attention to the advertisement of "McCormick's Virginia Reaper," in another column. Our correspondents at the west speak favorably of the operation of this Reaper. On the same page will be found the advertisement of Rapalje & Briggs, agents for Hussey's Reaper.

The Farmers' Guide to Scientific and Practical Agriculture, by Henry Stephens, Scotland, adapted to this country, by Professor Norton. It is issued in numbers of 64 pages, handsomely embellished, at 25 cents each. Leonard Scott, & Co., publishers, N. Y.

Spanish Merino Sheep.—We refer our readers to the advertisemont of John J. McAllister, of Gaines, N. Y. Mr. M. has some fine Spanish Merino Sheep, well worthy the attention of wool growers.

Princess Tribe of Short Horns.—For an advertisement of the produce of a young bull of this superior tribe of shorthorn cattle, see advertising pages.

No Humbug.

THE undersigned, after 20 years' experience and much research, has discovered a cheap chemical compound. easily applied, which completely prevents the ravages of the bee-moth. and which can be adapted to each and every kind of hive, whether patent or otherwise. This discovery he will impart to any individual on the receipt of one dollar. It being understood the purchaser shall hold himself honorably pledged not to impart the information to others. The whole contained in a circular, to which is added several valuable suggestions in the construction of hives and management of bees. worth more than any patent hive in existence. Address, post paid, SETH WHALEN,
June. 1850. [6-1t*] Ballston Spa. N.Y.

Splendid Michigan Farm for Sale,

CONTAINING 150 acres of arable land. two miles from Ann Arbor. on the main road leading to Detroit. 100 acres are in a high state of cultivation, for a new country; the balance is wood land; all fenced in. The white clover and other grass affords pasture for 150 sheep from shearing time until after harvest. About one-third of the cultivated land is sandy loam. the balance clay loam. The meadows produce heavy burdens of herds grass. The pasture fields, in addition to clover and timothy, are covered with a spontaneous growth of white clover. The house, an old one, stands back from the road about eight rods, partly surrounded with a grove of locust and sugar maple trees; the balance of the door-yard. one-quarter of an acre, contains fruit trees and shrubbery of different kinds. There is also a small orchard near by. of bearing apple trees. The out-buildings are good. The best of water, and plenty of it. Ann Arbor affords a good market for every thing the farmer has to sell, with flouring and saw-mills. female and male seminaries, and eight churches. The college and part of the village is open to view from this farm. I have resided on this farm 19 years. It is as productive and as desirable a location as is to be found in Michigan—only to be seen to be admired. The location is pleasant. and a healthy and good neighborhood. As I wish to decline farming, I would dispose of this property at the low price of $4,500; possession given in spring of 1851. Title indisputable. For further particulars, inquire of the undersigned. WM. ANDERSON.
Ann Arbor, Mich., June 1, 1850. [6-1t]

McCORMICK'S PATENT VIRGINIA REAPER.

THE undersigned, now on his way from the south to Chicago, Ill., finds only time, and room in the columns of the June number of the Genesee Farmer, to insert a short notice of his Reaper, and to promise a fuller and more detailed one in the next number.

The undersigned would respectfully state, in the first place, that a certain machine, advertised in the May number of the Farmer, and called "Seymour & Morgan's Improved Reaping Machine," though much inferior, from its compounded arrangement of some parts of other gearing, &c.. with that of the undersigned, is yet a palpable infringement of the latter—that a legal process has been instituted to hold them (Seymour & Morgan) to their just accountability for the same—and that the purchase and use of said machine by others, will make them equally liable with the manufacturers, to a prosecution. Purchasers are also further warned to take care that this machine is not palmed upon them in such a manner as to release the *seller* from responsibility to *them* for the *use* of it.

In the same number of said journal, is also an advertisement of "J. Ganson & Co.," also of Brockport, which may require a little explanation, by way of guarding against a possibility of misconstruction. In the HANDBILLS of Messrs. Ganson & Co., their right to manufacture and sell the Virginia Reaper is expressly restricted to the counties of Monroe & Orleans, which is not so CLEARLY the case in the ADVERTISMENT in question. It should be distinctly understood that while the right of J. Ganson & Co.. to manufacture and sell said Reaper is limited to the *time* stated by them. (March 1st, 1851,) this right is equally *restricted* to the counties of Monroe and Orleans. in its broadest sense And if they prefer making a *sacrifice* upon their machines. to insure the sale of all they have manufactured to be used in the two counties, (having no patent fee to pay for the time specified,) it can have no influence upon the price elsewhere.

The patentee of this Machine has for a number of years been careful to preserve as much uniformity in its price and sale as may be, and designs still to do so. And if his price, shipped from Chicago, is a *little* higher than that of his Reapers manufactured in this State, he trusts, from his facilities, to make his Machines at least that much a better article. It may here be remarked that great injustice has been done to the Virginia Reaper, by those manufactured at *Brockport* for a few years past; but *all* that were sold *last year*, without the late improvements, by Fitch, Ganson. & Co., of that place, gave entire satisfaction.

Perhaps the *best evidence* of the superiority of the undersigned's Reaper over all others, is the unparalleled demand for it in the *great western field*, having there almost entirely superseded all others, and where all that have really been tested have been *introduced*; and who ever heard of *any* new machine just got out, that was not *certified* to be *just the thing*, by good friends of course. who either may be incapable of judging, or if they discover defects. may confide in the *ingenuity of their friend* to remove them, but which in perhaps nine cases of every ten, is found *imaginary*.

But. as previously stated. for want of room in the present number of the Farmer, the *evidence*—and that of the most convincing character—of the superiority of the Virginia Reaper over all others, as last improved and manufactured at Chicago, is unavoidably postponed until the next number—1500 of them having been manufactured there (at Chicago) for the last. and 1600 now about completed for the ensuing harvest. Recollect that $5 or $10 in the price of a Reaper at harvest, is a small matter in comparison with the *great consideration* of having the best Reaper—the most reliable Reaper. *Recollect that.*

The undersigned will only add that one of these Reapers, manufactured for the last harvest, and having all the present improvements, was represented by the owner to have cut in the harvest 300 acres of grain, without a shilling's worth of repairs, *without changing or grinding the sickle*, and for which he refused its first cost, at the close of the harvest, and ordered another for the next.

A considerable number of these machines will shortly be sent to the Hon. Thos. J. Paterson, at Rochester, as general agent for the State, and who has appointed sub-agents in various parts of the wheat-growing territory. and distributed handbills which will be found to contain more full and detailed evidence of the value of the Reaper, as manufactured at Chicago

June, 1850. C. H. McCORMICK.

J. W. Sherman's Wheat Drill and Seed Planter.

WE are building three different qualities of these machines.

No. 1 is a superior Drill and Broad-cast Sower, and will sow fine manure (such as plaster. ashes. guano, &c.,) broad-cast or in the drill rows, any desirable quantity per acre, at the same time of drilling in the grain. It is well finished, substantially made, of good material, and WARRANTED, at the low price of $65.

No. 2 is built for drilling all kinds of grain. It will also sow fine manure broad-cast on crops. Price $55.

No. 3 is a plain Wheat Drill; simple, accurate, substantial.

None of our machines will clog in the runs; they can not do so with the most difficult kind of seed. The distributing principle is entirely new, invented this spring, and thoroughly tested.

We are prepared to supply all orders. Those wishing to purchase drills, would do well to see ours before purchasing elsewhere. The sooner the order is given, the more sure you will be of getting your Drill in time. All the above are seven tube Drills.

N. B.—Persons wishing to sell our Drills, are offered a good chance. A large descriptive bill will soon be issued, with cuts. All communications or inquiries, post paid, will receive prompt attention. Address SHERMAN, FOSTER, & CO.

June, 1850. [6-1t] Palmyra, Wayne Co., N.Y.

HUSSEY'S REAPING MACHINE.

WE would respectfully call the attention of farmers to the fact that we have the exclusive agency and the exclusive sale of the above named Reaper, in all that part of the State of New York west of Ontario county, and we are also general agents for the United States and Canada. We sell the Reapers at the Manufacturer's prices, adding only cost of transportation. They can be examined at our Store. All who design purchasing are earnestly requested to hand in their orders at once. as this will enable us to have on hand in season all that may be required, and prevent any being disappointed, as might be the case if orders were delayed till the harvest had begun. That they are the best Reapers made, and that it would be greatly to the advantage of farmers to have them. there is no doubt.

Annexed are a few of the many certificates which might be given:

MACEDON, Aug. 29, 1849.

Messrs. Rapalje & Briggs—Gents:—The Reaping Machine I bought of you, made by Messrs. Eldred & Hussey, at Auburn, has been thoroughly tested by me the present harvest, and I am happy to say has exceeded my most sanguine expectations I have cut with it 125 acres of wheat, besides my own crop, making some 200 acres of oats and wheat; and I can confidently recommend it to my brother farmers as just the machine they want. I have cut 12 acres of oats in half a day, and 20 acres of stout wheat in one day, with three horses abreast, and most of it was bad cutting I think I can cut 25 acres of good wheat in a day, and do it better than can be done in any other way My machine is now in perfect order, and I consider it full as good as when I got it of you.

Yours most respectfully, THOS. RUSHMORE.

WHEATLAND, August 20, 1849.

Messrs. Eldred & Hussey—Gents:—I have now used one of your Reaping Machines for two years, and do most cheerfully say that it has given the best satisfaction. I have cut my whole harvest, and a large one too, with my ordinary farm hands. I have cut 20 acres of stout wheat a day with ease, and I would most cheerfully recommend it to my brother farmers as the best and most economical machine that is used on a farm. In fact I think so much of it, that five hundred dollars would not induce me to part with it if I could not get another. I have also two brothers, each of whom have one of your machines. which they like very much, and could not be induced to be without. I think your agents, Messrs. Rapalje & Briggs, will sell a large number of them in our county next season, as many of my acquaintances have told me they intend to purchase one of your Reapers another season. ANAN HARMON.

BERGEN, Sept. 1st, 1849.

This is to certify that I have this season used one of Hussey's Reaping Machines, which I purchased of Messrs. Rapalje & Briggs, of Rochester. and that it gives perfect satisfaction. I have cut my wheat, which was very badly lodged, much faster, better, and cheaper than it could be done any other way. I have had one of McCormick's for the last three years. and it now stands in the road as a useless article. as I consider it, having tried to use it for three years without any success.

I consider Hussey's Machine just the thing for our farmers, and I could not now, after proving its merits, be induced to be without one. NOAH WILBUR.

GREECE, Sept. 7th, 1849.

Messrs. Rapalje & Briggs—Gent'n:—The Reaping Machine bought of you by Mr. Champion, for me, exceeds any thing of the kind I ever saw. You will remember that when I got it I said to you I was sure it would not work in my badly lodged wheat, as I had seen McCormick's tried repeatedly, and it was a perfect failure; but I was most agreeably disappointed. It cut any of my wheat better and faster than eight good cradlers could do, and I think it saved me from two to three dollars per acre in all my lodged wheat. in getting it clean and fast. In short, too much cannot be said in its favor. I would not sell it, if I could not get another, for one thousand dollars, for should I raise as much wheat for eight or ten years to come as I have for the last ten, it would save me more than that sum, and I think it will last me longer than that time. Yours, most respectfully, J. NORTON.

June 1, 1850. RAPALJE & BRIGGS.

Genesee Seed Store and Ag. Warehouse, Rochester, N.Y.

Morgan Horse General Gifford.

THIS justly celebrated horse will stand, the coming season. at Lodi village. Seneca county, N. Y. He was got by Old Gifford Morgan, out of a pure Morgan mare. In his size, color, form, and action, he closely resembles his distinguished sire. and is one of the very best specimens of this invaluable race of horses.

Terms of insurance, $12. Good pasture provided at the usual rates, and all necessary attention given to mares from a distance. Accidents and escapes at the risk of the owners.

March, 1850. [5-2t*] CHARLES W. INGERSOLL.

Morgan Hunter and Morgan Chief.

MORGAN HUNTER will stand the coming season. at the stable of S. A. Gilbert, East Hamilton. Terms $10 to insure. This fine horse is seven years old; was bred in Springfield, Vt.; got by Gifford Morgan; dam by the same horse. For figure and description. see *The Cultivator* for 1849, page 216.

MORGAN CHIEF will be three years old on the 18th of June, 1850. He is a very superior colt; was got by Gifford Morgan, dam by Green Mountain Morgan. See *The Cultivator* for 1849, page 67. He will be kept for a few mares only, at the stable of H. R. Ackley, East Hamilton. Terms $10 to insure.

ACKLEY & GILBERT.

East Hamilton, Madison Co., N.Y., June 1, 1850. [6-1t]

PATENT RAILROAD HORSE POWERS, AND OVERSHOT THRESHERS & SEPARATORS,

With recent important improvements, ☞ *for which patent is secured.* ☜ *Manufactured at the AGRICULTURAL WORKS, and sold wholesale and retail, at the* AGRICULTURAL WAREHOUSE AND SEED STORE OF HORACE L. EMERY,

Nos. 369 and 371 Broadway, Albany, N. Y.

THE subscriber having, at great expense of time and money, done much to introduce these machines throughout the country generally, and with such success, is fully satisfied of their superiority over every other kind of Threshing Machinery in use, with which he is acquainted.

Probably no other machines yet invented have met with so rapid an introduction, gone so extensively into use, or given such universal and uniform satisfaction.

The rapidly increasing demand has induced him to erect, during the past years, (1848. 1849,) a spacious manufactory in this city, to facilitate the manufacturing, and better supply the wants of the farming community.

These increased facilities, together with his extensive Warerooms, and complete assortment of every desirable article of Implement or Seeds wanted by the farmer, enables him to offer great inducements to the public to purchase their supplies of and through him, whether for their own use or to sell again.

Particular attention is called to the RAILROAD HORSE POWERS, AND OVERSHOT THRESHING MACHINES & SEPARATORS, as recently improved, by which the application of power is applied from the Endless Platform to the shaft of the driving band wheel, in such a manner as to *remove* the liability of *breaking of links and wearing of the small wheels*, and the slipping and wearing of the links and pinions in consequence, is *wholly avoided*. Greater strength, durability, and lighter friction are secured; all of which being important points not before attained in those machines

They are comparatively light and portable — the One Horse Power, complete, weighing about 1100 pounds; the Two Horse Power, complete. weighing about 1900 pounds. When they are to be often removed, axles and wheels are attached. forming of itself a wagon. When in use, one pair of wheels are removed.

They are operated by the weight of the horse or horses, at an elevation of about one and a half to two inches to the foot, or 16 to 22 inches, according to the weight of the horses.

Three men with the One Horse Power and a change of horses twice a day, can readily thresh from 150 to 200 bushels wheat or rye, or double that quantity of oats or buckwheat per day.

All can be operated inside of barns, in stormy weather, when men and teams could do little else to advantage.

The Thresher is Overshot, and is driven without any crossing of bands. The feeder stands erect and is not annoyed with dust. There is no liability of accident from the spikes, &c., as no hard substances can injure or break them. A Separator is attached to all the Threshers, and answers an admirable purpose for separating the straw from the grain, leaving it with the fine chaff, fit for the Fanning Mill.

They have been exhibited in operation by the subscriber during the past three years, at all the principal State and County Fairs of New York, Massachusetts, Ohio, and the Canadas, and have been extensively introduced and used among the farmers of these States and Vermont, Rhode Island, Connecticut, Virginia, North Carolina, Tennessee, Indiana, Illinois, Missouri, Iowa, Wisconsin, and Michigan.

The First Premiums of the Societies have been awarded them, and the highest encomiums of committees and farmers have been bestowed upon them for their SIMPLICITY, EFFICIENCY, UTILITY, DURABILITY and CHEAPNESS.

They can be taken in pieces and packed very compactly, and forwarded to any part of the country, by railroad, canal, or steamboats.

He has efficient agents for receiving and forwarding machines in all the principal towns and cities in the States of New York, Michigan, Indiana, Illinois, Iowa, Wisconsin, Ohio, Kentucky, Missouri, Vermont, &c.; and all machines delivered on board boats, cars, &c., and freights always contracted for at the lowest rates, and shipping bills made out and forwarded, without extra charge for same, insuring speed, safety, and reasonable charges for transportation.

Terms CASH, or approved notes, or city acceptances, at thirty, sixty, or ninety days, with interest.

They are warranted to operate as represented, or may be returned to the subscriber or his agents of whom they have been purchased, within three months, and purchase money refunded.

For further particulars, see Catalogue of Albany Agricultural Warehouse and Seed Store, Agricultural papers, Reports of Agricultural Societies, &c., &c., or by addressing the subscriber, postage paid.

A liberal discount allowed to those persons ordering and selling the machines in their vicinity, and agents wanted to sell and put them in operation, where not introduced.

Having had long experience in the manufacture and sale of agricultural machinery, he feels assured the public will hazard nothing in purchasing their Agricultural Implements and Machinery of and through him. For the satisfaction of those unacquainted with him, and his manner of doing business, he would refer them to the following gentlemen:

Luther Tucker, Editor and Publisher Albany Cultivator, and Treasurer New York State Agricultural Society, Albany.
Sanford Howard, Associate Editor Albany Cultivator, Albany.
E. P. Prentice, Esq., President N. Y. S. A. S., Albany, N. Y.
George Vail, Esq., Ex-Pres't do do Troy, N. Y.
A. Van Bergen, Esq., do do do Coxsackie, N. Y.
J. M. Sherwood, Esq., do do do Auburn, N. Y.
B. P. Johnson. Esq., do and present Secretary N. Y. S. A. S.
J. McD. McIntyre, Rec. Sec. N. Y. S. A. S., Albany, N. Y.
D. D. T. Moore, Esq., former Ed. and Pub. Gen. Far., and present Ed. and Pub. of Rural New-Yorker, Rochester, N. Y.
Jas. Vick, Jr., Esq., Ed. Genesee Farmer, Rochester, N. Y.
J. A. Wight, Esq., Ed. of Prairie Farmer, Chicago, Ill.
C. N. Bement, Esq., late Ed. and Pub. Am. Jour. of Ag., Albany.
Ruggles, Nourse, & Mason, Manufacturers and Dealers in Ag. Implements, Worcester and Boston, Mass.
John Mayher & Co., Dealers in Ag. Implements, New York.

Rare Evergreen Trees.

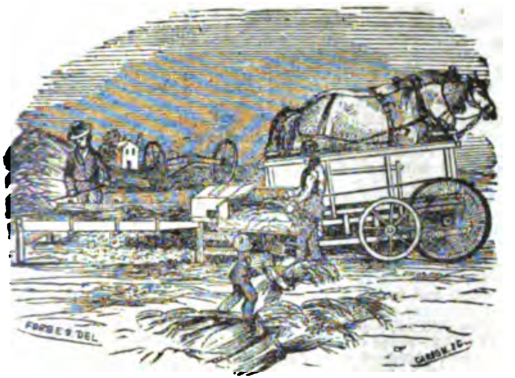
WE have on hand a fine stock of
DEODAR, or *Indian Cedar;*
AURACARIA, or *Chili Pine;*
CEDAR OF LEBANON;
ABIES MORINDA, or *Himalayan Spruce;*
PINUS EXCELSA, or *Lofty Pine;*
PINUS CEMBRA, or *Cembran Pine;*
CRYPTOMERIA JAPONICA;
TAXODIUM SEMPERVIRENS;
and many other species, all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March. 1850.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y., warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.



Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Separator.

THE subscribers, Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing. are now prepared to fill orders for machines, and to establish agencies, to any extent that may be desired.

These machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs, held in Massachuretts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse, or single machines, thresh rather more than half as fast as the double ones.

These horse powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, (of a proper height to allow the feeder to stand erect and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain, or short oats, and re-setting it at pleasure, for long rye or wheat, or oats in good order, or for timothy grass or clover; and all this is accomplished without stopping the machine, so simple is the process. By means of the Separator the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete. for either one or two horses, is easily loaded on a common farm wagon; but where frequent moving is desired. the two-horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power. and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement. (which has been made for the convenience of those who make threshing a business and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M.. & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers; and also Circular Saws and Benches. for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M.. & Co., or their Agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased. within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light. compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two-horse machine, complete, being less than 2,000 pounds, and of the one-horse, about 1.200.

The manufacturers are now establishing agencies in all parts of the United States and Canadas, where they are needed to facilitate the sale of these machines. Good agents are wanted in the southern and western States and the Canadas, to whom liberal commissions will be allowed.

HORACE L. EMERY, Esq., is a general agent for the sale of these machines in the State of New York. and is sole agent for the city of New York and the New England States.

Our other agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester; T. C. Peters & Brother, Buffalo; Peter R. Sleight, Esq., Poughkeepsie; F. F. Packer & Brother, Detroit; —— ——, Chicago; W. D. Bacon, Waukesha, Wisconsin; John Melick, Trenton, N. J.

These machines may also be had of John Mayher & Co., New York city. WHEELER. MELICK. & CO..

Hamilton st., corner of Liberty and Union sts., Albany, N.Y.

May 1, 1850.

The Thorough Bred Blood Horse Sir Henry

WILL continue to stand at the stable of the subscriber. one and a half miles northwest of Churchville, in the town of Riga, Monroe county. Terms $10 to insure a foal. Gentlemen from a distance will find good pastures. and will receive such attention as they desire, and on the most reasonable terms.

Sir Henry is of a beautiful unfading bay color. stands 16 hands and 1 inch high without shoes. and is a sure foal getter. He is remarkable for his vigor of constitution, his developments of bone and muscle. and his intelligent, kind. and docile disposition. He is compact and short legged for a thorough bred Blood horse; yet of a rangey and majestic figure. His action is graceful, but at the same time proud and commanding. But what is perhaps of more importance, he is descended through all the generations that are recorded in the English turf register. There is no horse living that can boast of a more illustrious pedigree. his immediate ancestors, who are of unparalleled beauty and elegance of figure. The superiority and value of this horse is abundantly proved by the following facts:—In 1844. Sir Henry received the first premium for Blood horses at the Onondaga County Fair; in September, 1845. he took the second premium for Blood horses at the great State Fair at Utica, (see the report of the committee on Blood horses. in the Transactions of the N. Y. State Ag. Society for 1845, volume 6;) and the same season the first premium at the Orleans County Fair; and in April, 1849, was brought into this county, and in the September following received the first premium at the Monroe County Agricultural Fair.

The proprietor has, at great expense, brought this horse into this county, hoping to improve its revenue by adding a valuable stock of horses for market. and supplying the harness of the county with thorough and pure blood of enduring and beautiful horses.

All accidents at the risk of the owners. Owners parting with mares before foaling time, without the consent of the subscriber, will be charged the insurance; and all mares not regularly returned to the horse once a week during the season. will be charged the insurance if not with foal.

May 1, 1850. [5-2t*] BILLING RICHMOND, Jr.

A Rare Chance—Important to Wool Growers.

THE Subscriber having recently purchased of Merril Bingham, of Vermont, at a great price FIVE BUCK LAMBS, from pure blooded Spanish Merino Ewes sired by the celebrated French Merino Buck, imported at a great expense by Mr. Bingham and J. A. Tainter, of Connecticut, in 1847, offers the same for sale to farmers in this secton, desirous of improving their stock of sheep. The chance is a rare one, as the pedigree of these sheep have been substantiated beyond a question, and the evidence is *in hand*.

The subscriber also purchased 30 pure blooded Spanish Merino Ewes, all in Lamb, by the old imported Buck above mentioned and now owned by Mr. Bingham, and a full blooded French Merino Ewe and Buck, at $200, which will be held for service another fall. This class of imported sheep shear from 18 to 23 lbs. of pure washed wool to the head. The size of carcass exceeds any thing now known in America.

He is fully confident that the superior advantages and the opportunity for great improvement thus offered to the Wool Growers of this county and section of country, will be duly appreciated. All who wish to purchase or examin the FORRIGN BLOOD, can do so at any time by calling at his residence three miles north of Albion, and one mile north of Fair Haven.

JOHN J. McALLISTER.

Gaines, March 15, 1850. [4-3t]

The Celebrated Horse Cub Baccus,

THE best blooded and most perfect horse in this part of Michigan, will stand for the use of mares, during the present season, at Bellevue, Marshall, and Penfield.

Cub Baccus is ten years old this spring, was sired by the well known horse Baccus; his dam was sired by the old Cub Messenger, who was sired by the imported horse Golden Farmer.

Farmers wishing to breed from a good horse, will please examine the Baccus and his stock, which is superior to that of any other horse in this part of Michigan.

Terms—$2 the leap. $4 the season, and $5 to insure.

JOHN F. HINMAN.

Bellevue, Eaton co.. Mich., May 1, 1850 [5-2t*]

The Morgan Horse Major Gifford

WILL stand the ensuing season, on Mondays, Tuesdays, and Wednesdays, at the stable of E. W. Sheldon, Sennett; on Thursdays and Fridays at the stable of S. B. Rowe. Camillus; and on Saturdays at the stable of John C. Munro, Bellisle.

Major Gifford is seven years old this spring; his color is a beautiful chestnut. He was sired by the Gifford Morgan, his dam a pure Morgan. Breeders of good horses are invited to call and see him.

TERMS—Ten dollars to insure. Pasturage furnished. Accidents and escapes at the risk of the owners.

April 1, 1850. [4-3t*] MASON & CO.

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The Princess Tribe of Short Horns.

IN January, 1849, Mr. Sheafe, of High Cliff, Dutchess county, N. Y., imported the young bull Exeter, bred by Mr. Stevenson, of Durham, England. Mr. Stevenson is the most celebrated breeder now living, and his herd is of the Princess tribe, one of the best and most ancient stock of Short Horns. The breeding of the Princess tribe can be traced back as pure Short Horns upward of *two hundred years*, a matter of no small consideration to those who wish to breed true stock of a reliable quality.

Exeter was selected for Mr. Sheafe, by that excellent judge of Stock, Mr. A. Stevens, of New York. He was considered one of the very best bulls in England Quite a high price was paid for him. It is believed that his superior has never before been imported into this country. He is a beautiful yellow-red—which is a bright red, with a fine golden or saffron under tinge, arising from a rich yellow skin, and is the only bull of this peculiarly fine red ever imported. A few calves of his get will be for sale this season. Their dams are Herd Book Short Horns, very fine in their points, and great milkers. Those who desire to improve their present stock by taking a superior fresh cross, will please to apply to

June, 1850. [6-3t] A. B. ALLEN & CO., New York.

The Celebrated Horse Morgan Eagle.

THIS truly celebrated Horse will stand for mares this season, commencing April 25th, at the American, Lima.

Morgan Eagle was purchased in the fall of 1847, in Tunbridge, Vermont, by J. Henderson, at a high price, for the express purpose of improving the stock of horses in this county. He is about sixteen hands high, and well proportioned, is a bright bay, and for symmetry and action can not be surpassed. Morgan Eagle and the celebrated trotting mare, Lady Sutton of New York, were sired by old Morgan Eagle of Vermont. Breeders of horses are particularly requested to call and examine him.

Pasture will be furnished for mares sent from a distance, and good attention paid to them. Escapes at the risk of the owners.

Those parting with mares before foaling, will be held responsible for the insurance. HENDERSON & AUSTIN.

Lima, April, 1850. [6-1t*]

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850 [6-tf]

Splendor.

THE Short-Horn bull known as OLD SPLENDOR, bred by Thos. Weddle, will be kept the present season on the farm of Jacob W. Page, Sennett corners, Cayuga county, N. Y.

Splendor has been owned some years in Avon and Lima, Livingston county; and the fact of his having served one hundred cows the past season, is sufficient evidence of his value as a getter.

Terms $5 a cow. JOHN R. SAGE.

Sennett, June 1, 1850. [6-1t*]

Bickford & Huffman's Grain Drill.

THIS Drill is an improvement, in several important particulars, on Bickford and Huffman's Drill manufactured and widely distributed last year, and which operated to the entire satisfaction of every purchaser. The chief points of superiority are as follows:

1. The revolutions of the Distributing Cylinder are increased or diminished at pleasure, with perfect precision, by means of cog-wheels of different sizes. By this arrangement, the quantity of seed distributed to the acre is regulated with perfect accuracy.

2. The Teeth may be elevated or dropped separately, or simultaneously, with a single motion of the hand, according to the will of the operator.

3. The Drilling Tubes, being made of iron instead of leather, are immeasurably more durable, and the seed always passes them with a clear and unimpeded current.

4. This Machine possesses great advantages in the superior regularity of distribution along the furrow—in the simplicity of its construction—in the durable and substantial style of its manufacture—and in its far greater cheapness, when all its points of usefulness are taken into consideration.

This Drill will sow all kinds of grain, if properly cleaned.

PRICES—Seven tube Drills, $65; Nine tube Drills, $75.

Orders, addressed "Bickford & Huffman, Macedon, Wayne co., N. Y.," will be faithfully and promptly attended to.

Burrall's Agricultural Foundry and Machine Shop.

THE subscriber manufactures various Agricultural Implements of the most approved kinds, which he sells at wholesale and retail. His work is all warranted to be well built and to work well.

The increasing demand for articles of his manufacture, recently rendered additions to his shops necessary, which having been completed, he has every facility for producing perfect work, and at reasonable prices.

Among the implements now sold by him, are Burrall's Clover Mills, 4 sizes, [1st premium last State Fair;] Burrall's Shell Wheel Plows, 12 sizes, highly improved the present season; Plain, Iron beam, Shovel, Subsoil, and Corn Plows; Burrall's Corn and Grain Cultivators; Improved English Drill, for seeding and manuring at a single operation; Straw Cutters, for hand and horse power; Threshing Machines and Horse-Powers, Clod Crushers, Field Rollers, Corn Shellers and Separators, &c., &c.

Orders from abroad attended to without delay. A liberal discount to the trade. Rapelje & Briggs, Rochester, agents.

Geneva, N. Y, June, 1850. E. J. BURRALL.

Threshers, Take Notice.

THE subscribers manufacture an eight-horse power that stands on a low wagon when in operation, thereby saving the trouble of loading and unloading either Horse Power or Separator. The Horse Power is double geered, yet has less than one half as many boxes and mashes of gearing as any other in use. They can be set ready for use by one man, in half the time required for other machines. The Cleaner possesses facilities for separating the grain from the straw, superior to any other, never winds, and is capable of threshing from three to six hundred bushels of wheat per day. They have been introduced into most of the grain growing States with unexampled success. Those wishing machines, can have privilege of thoroughly testing them before purchasing. The price of both machines is only $275. The above machines are kept constantly on hand and for sale at Woodbury's steam works on Canal street, Rochester, N. Y.

Smaller sizes furnished, if desired. Also forsale, the right of territory on both the above machines. J. & D. WOODBURY.

WONDERFUL BOOK—NOW READY,

The Mysterious Noises in Rochester

AND WESTERN NEW YORK—A history of these remarkable sounds and of all the Strange Phenomena connected therewith, the Spiritual Communications, &c, &c. Price—single, 12½ cts.; 10 copies for $1. Orders by mail will be promptly attended to.

Ten agents wanted, to sell the above work, together with other new and valuable works, to whom a fair chance to make money money will be given. A small capital of from $15 to $25 required, and the agent will be indemnified against loss

D. M. DEWEY, Arcade Hall, Rochester, N. Y.

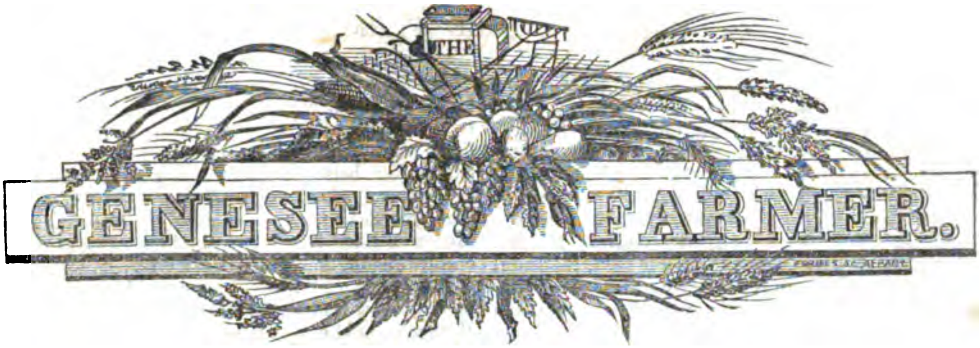
THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c
VOLUME XI, FOR 1850.
DANIEL LEE & JAMES VICK, JR., EDITORS.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

FIVE Copies for $2; Eight Copies for $3, and any larger number at the same rate.

DANIEL LEE.
December, 1849. *Rochester, New York*

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.



THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—JULY, 1850. NO. 7.

WHEAT CULTURE.

SIR HUMPHREY DAVY says: "The exportation of grain from a country which receives nothing in exchange that can be turned into manure, must exhaust the soil in the long run;" and this illustrious chemist expresses the opinion that the present sterility of various parts of northern Africa and Asia Minor, as well as Sicily, is to be ascribed to excessive cropping without manuring the land. In an instructive chapter on "Rotation of Crops," BOUSSINGAULT remarks: "When a succession of crops is grown upon fertile land without renewal of manure, the produce gradually diminishes; and after a certain period, if it be grain, the quantity which at the outset was eight or nine times the amount of the seed, will be reduced to three times or even to twice the seed. Thus crops impair the soil, and ultimately exhaust it." In another place, this writer informs us that he saw fields which had borne good crops of wheat every year for two centuries, on the table lands of Peru, which were doubtless fertilized with guano. An interesting letter from WM. G. MOREHEAD, late U. S. Consul at Valparaiso, recently published in the Philadelphia North American, furnishes important information as to the cheapness of wheat in Chili, which is about to be sent in the shape of flour, to California and the Sandwich Islands, in great quantities. Mr. M. states that the first shipment of flour to California will take place within a few weeks, and thereafter regularly, commencing with 25,000 bbls. a month, and adds—

"The harvest that has just been secured (I am informed,) has well rewarded the husbandman, the crop being very large. The price of wheat is therefore comparatively low, 26 to 31¼ cents per bushel in the interior, on delivery at the mills. I obtained from a gentleman of high character, who is perfectly conversant with the subject, the following information: At Conception and vicinity, there are ten first rate flour mills, the machinery for which was obtained in the United States, and, with the exception of two, are owned and managed by Americans and Englishmen. The average monthly product of these mills is about 30,000 bbls. of superfine flour for export, which, in quality, is regarded as being equal to the best flour manufactured in the United States. Between Conception and Santiago there are two good mills, which manufacture for export some 4000 to 5000 bbls. per month; and at the capital, Santiago, there are five or six establishments of considerable extent, engaged in manufacturing for export, which together produce from 18,000 to 20,000 bbls. monthly; besides which there are a large number of small mills engaged in manufacturing for home consumption. Thus it appears that there are produced monthly in Chili some 50,000 to 55,000 barrels of superfine flour for export, all of which must find markets in the Pacific — the principal being California.

"The great fluctuations that have so frequently occurred in that market during the past year, the price of flour varying from less than the cost of placing it there to $30, $40, and even $50 per bbl., have induced the millers to enter into the arrangement alluded to above, by which they (the millers) bind themselves to supply this company the entire product of their mills, at the price of $4,44 per bbl. delivered in the warehouse, for shipment. The company have a large and commodious warehouse at San Francisco, at which they are bound to keep a regular and constant supply of flour, adequate at all times to meet the demand, and to dispose of the same at a moderate profit — thus securing to the citizens of California a supply of the staff of life at a low price.

"The consumption of that market is estimated by these gentlemen to be not less than 25,000 bbls. per month at present, calculating an increase of say 5000 bbls. per month. I consider it important that the above facts should be generally known throughout the United States of America, that persons who may be induced (by the recent extravagant price of flour) to ship to California, can do so understandingly."

The Nicaragua treaty between England and the United States having for its object the construction of a ship canal between the Atlantic and Pacific, will secure the speedy construction of that long talked of and magnificent work, and bring the guanoed wheat fields of Chili and Peru several thousand miles nearer the ports of Mobile, Savannah, and Charleston, which import both northern flour from New York and western from New Orleans. We learn from the Journal of Commerce, that three ships laden with Egyptian wheat are on their way from Cairo to this country—the owners of this grain expecting to pay 20 cents a bushel duty on its admission. Wheat has been cheaper in England within the last six months than in one hundred and fifty years; and fair harvests this autumn in Europe, will reduce the market value of breadstuffs to a still lower figure.

Wheat growers that have a surplus to sell will doubtless act wisely to place their crop in market as soon after harvest as practical. The price is now high, and must continue until new wheat is offered.

It is a matter of considerable importance that the most economical process of tillage, seeding, gathering, threshing, and cleaning wheat, be adopted. No operation has paid better than sub-soil plowing in England; and the use of reapers is just beginning to attract the attention of English farmers. Messrs. **Rapalje & Briggs**, extensive dealers in agricultural implements in Rochester, have just filled an order for one of Hussey's Reapers, to go to Liverpool; and other American implements are in use both in the British Islands and on the Continent, with entire satisfaction. Our farmers are most deficient in feeding wheat plants with their natural and appropriate food. Little is thought of beyond the application of lime, gypsum, turning in clover or some other green crop. The elements of wheat contained in all the grain, meat, milk, cheese, potatoes, and other articles of human consumption, annually wasted in this country, are fully equal to the production of 12 bushels of wheat to each person in the United States. At this estimate the aggregate would be 264,000,000 bushels from the fertilizers now thrown away. More thorough culture, greater care in saving and applying manures, and better attention to the extirpation of all weeds, like red root, Canada thistles, cockle, chess, garlick, and the like pests, will improve the quality and intrinsic value of this important staple. At the present writing, wheat is backward but very promising in Western New York.

* * *

PATENT OFFICE REPORT.—Part. II.

Suggestions for the Improvement of Agriculture.

Sir: Agreeably to your request, I have prepared, and have the honor herewith to submit, a report on the statistics and progress of Agriculture in the United States for the year 1849.

The communications received in answer to the circulars issued from the Patent Office in the usual form, number some four hundred. Not a few of these are extended essays, and all contain useful facts or suggestions, which have been gratuitously furnished by the contributors. To publish the whole would require two large volumes, in place of one of moderate size; and to reject three-fourths of the matter in hand seemed a poor return to the many gentlemen, in almost every State, who have kindly proffered their services to promote the most important interest of the republic.

Under these circumstances, it was thought not amiss to re-write and greatly condense three-fourths of the letters and essays intended for the report. This labor has been great, but it has saved some $10,000 in printing, and it is hoped with improvement to the document, and without doing injustice to any correspondent.

The undersigned deems it not out of place in submitting this report, to offer a few suggestions in reference to the ways and means now available for the improvement of American agriculture.

1.—AGRICULTURAL EDUCATION.

Since 1823, when Judge **Buel** introduced the first bill to establish an agricultural college in the State of New York by legislative aid, constant efforts have been made to render the study of rural economy as a *science*, not less than its practice as an *art*, popular in this country Twenty-seven years have now elapsed, a whole generation has passed off the stage, and New York, with her five hundred thousand cultivators of the soil, is still without the first agricultural school worthy of the name; nor is any other State in a better condition. Dark as this view of agricultural education really is, it is the darkness that precedes the dawn of a bright and happy day. Men who have labored for the improvement of agriculture and the elevation of agriculturists, for a quarter of a century, with little of hope and less of pecuniary reward, now realize the beginning of an auspicious change in public sentiment. Thanks to agricultural journals and societies, the people will soon discover that labor and capital devoted to tillage and husbandry are as worthy of legislative consideration as labor and capital employed in mining, commerce, and manufactures. So soon as this truth shall be fairly comprehended, the long struggles of the friends of improvement will be crowned with success, and the victory won over both ignorance and its traditions.

It is indeed wonderful how long those enlightened, reasoning farmers, who, like Washington, cherish a due respect for their high calling, have had to beg, and beg in vain, of State Legislatures and of Congress, for a little assistance to prevent the universal impoverishment of American soils. Whatever has been done to arrest the exhaustion of arated lands, has been effected not only without due aid from Government, but in spite of a mistaken policy which encouraged the removal of all the elements of bread and meat from cultivated fields, and their speedy transportation beyond the possibility of restitution. Neither the earnest recommendation of the illustrious farmer of Mount Vernon, nor the prayers of two generations of agriculturists, nor the painful fact that nearly all tilled lands were becoming less and less productive, could induce any Legislature to foster the study of agriculture as a *science*. Happily, this term, when used in connexion with rural affairs, is no longer the subject of ridicule.

Some pains have been taken in this report, to prove that one thousand millions of dollars judiciously expended, will hardly restore the one hundred millions of acres of partially exhausted lands in the Union to that richness of mold and strength of fertility for permanent cropping which they possessed in their primitive state.

The continued fruitfulness of the earth is an interest far greater and more enduring than any form of government.

If the twenty-two millions of people now in the United States may rightfully exhaust the natural fertility of one-third of the arable lands of the country, the forty-four millions who will be here twenty-five years hence may properly consume the productiveness of the remaining two-thirds of all American territory.

A great principle is involved in the science of agriculture, which reaches through indefinite generations, and forms the basis of all possible improvements and of the highest hopes of our race. All advancement is impracticable in a country that closely approximates the condition of a desert.

As a nation of farmers, is it not time that we inquire by what *means*, and on what *terms*, the fruitfulness of the earth and the health and vigor of its invaluable products may be forever maintained, if not forever improved?

These are questions of universal concernment, to the careful and rigid investigation of which no man should refuse to lend a listening ear. A governmental policy which results in impoverishing the natural fertility of land, no matter by what popular name it is called, must have an end. It is only a question of *time*, when this truly spendthrift course, this abuse of the goodness of Providence, shall meet its inevitable punishment. To show the necessity of reform, a plain estimate has been made, in the chapter on "agricultural statistics," to prove that we annually waste enough of the elements of bread, without which not the first kernel of corn can be formed, to produce one thousand million bushels of this important staple.

The Board of Agriculture of Ohio estimates the crop of corn in 1849, within the limits of that State, at seventy million bushels; and it will hardly be extravagant to say, that the farmers of Ohio, Indiana, Michigan, Illinois, and Wisconsin, export a million tons of breadstuffs and provisions, where they import one ton of the atoms drawn from their virgin soils, to form agricultural products. Can it be said, in truth, that a million tons of bread and meat are produced from *nothing?* Will it be contended that the earth within the reach of good plowing contains an unlimited amount of the precise things consumed to make the plants, whose organic an inorganic elements are taken from the soil, and never restored? If this be true, then all fertilizers are not only unnecessary, but absolutely worthless. This cannot be so; for lands that seventy years ago produced from twenty-five to thirty-five bushels of wheat in the State of New York, now yield only from six to nine bushels per acre; and in all the old planting States the results of exhaustion are still more extensive and still more disastrous.

A lack of mental culture and discipline is the most serious impediment to the diffusion of agricultural science among the mass of farmers. Its language is to them an unknown tongue. Hence, the most sublime truths in the economy of nature are shut out from the popular understanding. It is feared that this will ever be the case until schools designed to teach those branches of learning which the practical farmer greatly needs, but does not possess, are established and maintained throughout the United States. So long as we refuse to plant the seed, it is folly to expect a rich harvest of knowledge.

We over-estimate the value of mere physical strength, like that of the ox or mule, and under-estimate the intrinsic worth of cultivated, well-developed Reason, in practical agriculture. No inconsiderable degree of mental culture must precede all scientific tillage and husbandry. An oak is not matured from an acorn in a day, nor in a year; nor is it possible to form, in a single generation, an universally educated and highly improved race of men. Such improvements, to be general, and fixed in a people as a distinguishing feature in their character, must be deeply impressed on several successive generations.

As a class, farmers have few advantages for being well informed in the rapid progress now making in the economical improvement of soils, cultivated plants, and domestic animals. This lack of opportunity is a serious misfortune, and leads to this practical result: With 5,000,000 farm laborers — 2,700,000 in the slave-holding, and 2,300,000 in the free States — American agriculturists so misdirect this immense power of production, that the injury done to 100,000,000 acres of land is nearly equal to all the apparent nett profits on the whole rural industry of the country.

To illustrate an important fact, as well as principle, let us suppose that a farmer produces crops worth $1,000, and that they cost him, including all expenses for labor, wear of implements, interest on capital, &c., $850. Nominally, he has a profit of $150; but it often happens that, if he undertakes to replace in his cultivated fields as much of potash, soda, magnesia, phosphorus, soluble silica, and other elements of crops, as both tillage and cropping had removed, it will cost him $175 or $200 to effect that purpose. It is only by *consuming the natural fertility of the land* that he has realized any profit.

In a national point of view, all labor that impoverishes the soil, is worse than thrown away. No fact in the science of political economy is more important than this. To reduce a field, which in its virgin state produced forty bushels of corn per acre, down to twenty in ten years, and then cultivate it forty years and harvest only twenty bushels per acre in place of forty, is equal to a loss of four hundred bushels of corn per acre in the aggregate, or half the diminished product, without any equivalent whatever. Thus to impoverish land is to wither the muscles of both man and beast employed in its tillage. Human toil is often praised for being highly *productive*, when, had the whole truth been known, it would have been seen to be remarkably *destructive*. Labor never creates a particle of new matter by plowing deep or shallow; but it frequently places the elements of grain, cotton, and provisions, beyond the reach of all scientific farmers who may live hereafter, and find the soil wanting in the raw material for making human food and raiment.

Is it not the duty of government to diffuse among its citizens a knowledge of the true principles of tillage, and impress upon them the obligation which every agriculturist owes to posterity, not to leave the soil he cultivates in a less fruitful condition than he found it?

II. — THE RAVAGES OF INSECTS.

Such insects as Hessian and wheat flies, curculios, weevils, army and boll worms, annually destroy crops to the amount of twenty millions of dollars. If a pirate on the high seas, or an Indian savage on land, injures the property of a citizen to the amount of a few dollars, millions are expended, if need be, to punish the offender. This is right. But when public enemies of a different name do a thousand times more injury to a whole country, are its citizens under any necessary restraint which forbids their making a common effort to protect their property from insect devastators? Parasitic plants, such as rust on wheat and many fungi, as well as injurious insects, are on the increase. To attempt to explain the reasons *why* this is so, would lead at once into questions in animal and vegetable physiology, out of place in this brief synopsis of such rural topics as are believed to be of general interest. It may not be amiss to remark, however, that many boys are, apparently, educated to kill all small birds that subsist mostly on insects, so soon as these youngsters are large enough to shoulder a gun.

Government can do much to check the ravages of insects, by collecting and diffusing useful information as to their habits, times of transformation, and the best means of destroying or avoiding them. If farmers fold their arms and say that nothing can be done by the science of entomology, nor by any other means, what but an increase of the evil is to be expected? Not to *try* to escape the infliction, is treating one's enemies with unmanly forbearance, and evinces a belief in fatalism worthy a disciple of Mahomed.

III.—ANALYSIS OF SOILS, MARLS, AND FERTILIZERS.

Something should be done in reference to the analysis of soils, fertilizers, marls, and other minerals, constantly sent to the Patent Office for that purpose. For many years chemists and philosophers have been investigating the affinities and other peculiarities of "molecules," or ultimate indivisible particles of matter. These scientific researches have revealed many important truths and natural laws, which have a direct bearing on all the economical purposes of agriculture. Some pains should be taken to impart a knowledge of these laws to all practical farmers. When we consider how little opportunity the mass of agriculturists have to study the chemical composition of their soils and crops, it will readily be seen that information of this kind is greatly needed in all operations which aim to feed cultivated plants with their appropriate aliment.

Professor Henry, the distinguished Secretary of the Smithsonian Institution, has authorized me to say that the extensive chemical apparatus and excellent laboratory of the institution will be at the service of any reputable chemist, to make investigations for the increase and diffusion of knowledge in this branch of science.

I have compiled for this report about one hundred analyses, embracing most of the cereals, several grasses, clovers, legumes, roots, cotton, tobacco, flax, and the ash of fruit and forest trees, from the latest European and American authorities. These analyses will be found valuable for reference.

An elaborate paper on the "Study of Soils," giving the chemical composition of their parent rocks, the amount of the elements of crops in a cubic foot of earth available as food for plants, together with researches into the annual production and consumption of mold, the variation of the temperature and hygrometric properties of soils, has been deferred, to keep this document within a moderate size. For a similar reason, no space has been allowed for mere *guesses* at the quantity of grain and other crops grown in the year 1849.

IV.—THE PRESERVATION OF PROVISIONS.

The science of preserving meat, lard, butter, cheese, and other animal as well as vegetable substances used as food for man, has received very little attention in this country. This neglect causes a loss of many millions every year. To say nothing of the bad taste of eating so much frowy and rancid butter at home, full one-half of all that is sent to England and other foreign countries is sold at half the price of sweet butter, by reason of the defective manner in which it is manufactured and put up for market. American farmers have great advantages for the economical production of beef and pork, mutton and wool; and it will render them a valuable service to obtain from Europe correct information of all discoveries and improvements, either in the growing and feeding of domestic animals or in the curing of provisions.

V.—IMPROVEMENT OF DOMESTIC ANIMALS.

Few are aware how susceptible of improvement is the living machinery which elaborates *milk* for nearly every family in the Union. There is a reliable account in this report, of a dairy of forty-one cows kept in the State of New York, which yields $62 in butter, cheese, and milk, as the product of each cow a year. From the returns of the last State census, it is safe to say that 1,100,000 cows are now milked in that State, which are supposed to yield about $20 per head. To improve these up to an average annual product of $31 each, (that is, to one-half what the best large dairies in the country now yield,) would add $12,100,000 to the income of the citizens of a single State. This gain by the improvement of one kind of rural machinery would be equivalent to creating a capital of $200,000,000, and placing the money where it would yield over six per cent. interest in perpetuity. If the thirty millions of sheep in the United States gave as good returns in wool for the food consumed as the best 100,000 now do, it would add at least 60,000,000 pounds to the annual clip of this important staple.

In one of his letters to Sir JOHN SINCLAIR, Gen. WASHINGTON says, in substance, "that at the time he entered the public service in the war of the Revolution, his flock (about 1,000) clipped five pounds of wool per fleece. Seven years after, when he returned to his estate, his flock had so degenerated that it gave an average of only two and a half pounds per head, which was the common yield of Virginia sheep then, as it is now."

Although the numerous importations of superior sheep, cattle, horses, and swine, have greatly benefited the country, it must be admitted that much has been lost by suffering improved animals to deteriorate. Every wool-grower should ponder well this fact. If two and a half pounds of wool will pay the whole cost of keeping a sheep a year, five pounds will pay one hundred per cent. profit on that cost. WASHINGTON was eminently a "book-farmer," and was anxious to gain knowledge from the educated agriculturists of Europe and his own country. His overseer believed in keeping sheep as his father did, and was opposed to all innovations in husbandry.

There are now not far from 6,000,000 horses and mules in the United States; and it is not too much to say that, in a few generations, these animals may be improved full $30 a head on an average. If so, the gain by this increase of muscular power, and its greater durability, will be $180,000,000. If we study critically the machinery for converting grass, roots, and grain, into beef and pork, the difference is found to be still more striking. If the facts relating to this subject were spread before the people, great improvement would soon follow, and all classes share equally in the profits of more productive labor.

VI.—THE DISTRIBUTION OF SEEDS AND CUTTINGS.

It is a law of nature now fully recognised by men of science, that all cultivated plants and fruits, as well as all animals, are subject to constitutional deterioration, and are susceptible of organic improvement. Hence, one thousand seeds of one variety of wheat, corn, cotton, or tobacco, will produce a larger crop, under equal advantages of climate, soil, and culture, than a like number of seeds of another variety.

Plants propagated by buds, like sugar-cane, potatoes, and fruit trees, are peculiarly liable to constitutional weakness, and are less able to endure rude treatment in violation of the laws of vegetable life. On many plantations, the vital force of the sugar-cane is nearly exhausted; and this office is strongly urged to procure from countries where the plant is indigenous and grows from the seed a new stock, both of seeds and rattoons, for the use of planters. In cultivating this tropical plant in districts bounding its zone on the north, much care and some science will be found highly useful.

Both seeds and cuttings of the best figs and olives grown on the coast of the Mediterranean should be procured through American consuls resident at the different cities on the borders of that sea. Figs and grapes, "oil and wine," will some day be numbered among the staples of the southern States.

There is reason to believe that the most improved varieties of wheat grown in England and France will be a valuable acquisition to this country; and our wheat-growers would esteem it an especial favor if only a few bushels were procured for general distribution. With the small sum appropriated for the purpose, about eighty thousand packages of seeds have been put up and distributed within the last three months. With a better organization, and greater facilities for collecting seeds and cuttings, vastly more good might be done.

There are now some 200,000 copies of agricultural papers and periodicals printed, which circulate more or less in every State in the Union. These are doing an invaluable service to the country. They cannot, however, enact laws for collecting, annually, reliable statistics of the results of labor and capital employed in agriculture. Truthful statistics form the basis of all reforms—of all progress. State Legislatures must aid in this great work. If "knowledge is power," ignorance is *weakness*; and the removal of this weakness is one of the highest duties of every republican government. Either the assessors or collectors of State and county taxes should be provided with blanks to collect useful information, as well as money, from the people.

VII.—HOW CITIES EXHAUST THE FERTILITY OF LAND.

There has been enough of the elements of bread and meat, wool and cotton, drawn from the surface of the earth, sent to London and buried in the ground or washed into the Thames, to feed and clothe the entire population of the world for a century, under a wise system of agriculture and horticulture. Down to this day, great cities have ever been the worst desolaters of the earth. It is for this that they have been so frequently buried many feet beneath the rubbish of their idols of brick, stone, and mortar, to be exhumed in after ages by some antiquarian Layard. Their inhabitants violated the laws of nature, which govern the health of man and secure the enduring productiveness of the soil. How few comprehend the fact that it is only the elements of bread and meat, evolved during the decomposition of some vegetable or animal substance, that poison the air taken into human lungs, and the water that enters the human system in daily food and drink! These generate pestilence, and bring millions prematurely to their graves.

Why should the precious atoms of potash, which organized the starch in all the flour, meal, and potatoes consumed in the cities of the United States in the year 1850, be lost forever to the world? Can a man create a new atom of potash or of phosphorus when the supply fails in the soil, as fail it must under our present system of farm economy? Many a broad desert in Eastern Asia once gladdened the husbandman with golden harvests. While America is the only country on the globe where every human being has enough to eat, and millions are coming here for bread, how long shall we continue to impoverish ninety-nine acres in a hundred of all that we cultivate? Both pestilence and famine are the offspring of ignorance. Rural science is not a mere plaything for the amusement of grown-up children. It is a new revelation of the wisdom and goodness of Providence, a humanizing power which is destined to elevate man an immeasurable distance above his present condition. To achieve this result, the light of science must not be confined to colleges; it must enter and illuminate the dwelling of every farmer and mechanic. The knowledge of the few, no matter how profound, nor how brilliant, can never compensate for the loss sustained by neglecting to develop the intellects of the many.

No government should be wanting in sympathy with the people, whether the object be the prevention of disease, the improvement of land, or the education of the masses. One per cent. of the money now annually lost by reason of popular ignorance would suffice to remove that ignorance.

I have the honor to be, with great respect, your obedient servant, DANIEL LEE.

HON. THOMAS EWBANK,
Commissioner of Patents.

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HINTS FOR JULY.

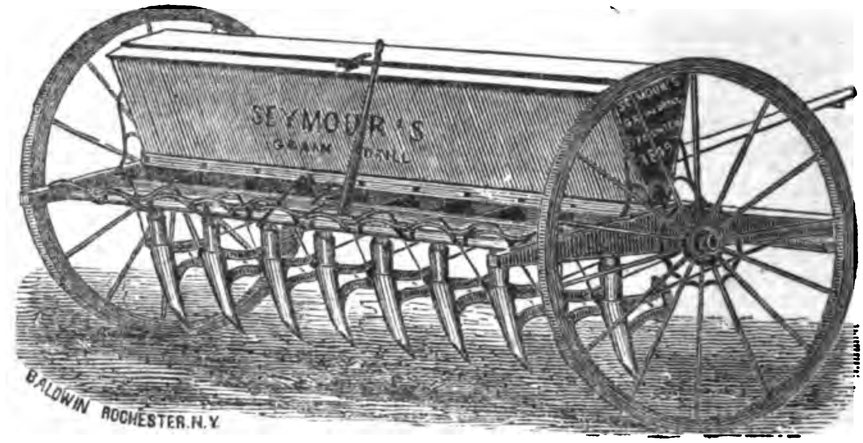
THE principal work for this month is Haying and Harvesting. It was always our delight, even in our most juvenile days, to visit the hay-field. And now, we never feel so much in love with the farmer's life as when we swing the scythe among the tall grass or rake the new mown hay. The farmer should see that his corn is hoed, garden weeded, cabbage set, and other small matters attended to, so that nothing may be in the way of haying and harvest, and then he can put all his force at the work. Now is the time to see that scythes, forks, rubbers, hay rigging, &c., are on hand and in order.

Cut your June and wild grasses early, even before clover, if you desire to have it worth anything. Clover hay must also be cut early, or when the last sets are in blossom, and the first ones a little turned; and observe one well established principle, that if that cut in the forenoon is not cured sufficiently to take in the same day, that as soon as it is fairly wilted it should be put up in cocks of 75 or 100 lbs., and left from three to four days; and on a fine sunny morning open it, and by ten o'clock it is ready to load. By this process the leaves and blossoms are preserved in a fine fragrant state—the real old hyson—and not the black, tasteless, bean-stalks and hop-vines of the old process. If you have any fears that the hay is too green when taken in, pack it away loosely and let it settle by its own weight, and finely and evenly sprinkle on four quarts of salt, and not more, while unloading.

Stacking out hay is a bad business, unless it is thatched, or made up by an artist—it should be in the barn, or under barracks. An open, rainy fall and winter destroys at least one quarter, and if it stands over one year, the mice destroy the balance.

Buckwheat should be sown early in July, about three pecks to the acre.

Sow round turneps and cut Canada thistles the last week in this month.



SEYMOUR'S GRAIN DRILL.

SEYMOUR'S GRAIN DRILL.

In the engraving above, we present another Drill claiming public favor. It is manufactured by the inventor, P. Seymour, Esq., of East Bloomfield, Ontario county, N. Y. It is not our business to praise one drill to the disparagement of others. We place before our readers the various drills and other farm implements that we have reason to believe are valuable, thereby giving all an opportunity, as far as possible, of reading and judging for themselves. Our correspondents have always freely given the results of their experience, and will continue to do so, and thus our readers have the benefit of the opinions of disinterested and practical men—experience not gained in the *machine shop*, but in the *field*, under various circumstances, on rough and smooth, hilly and level, stony and clear land.

It is generally conceded among the best farmers, we believe, that by drilling wheat and other crops, two desirable objects are gained—a saving of seed, and a better crop; and the necessities of farmers demand, and the genius of our mechanics will supply, implements well adapted to the work.

The first premium for a Grain Drill capable of depositing fine manures with the grain was awarded to Seymour's Drill, at the last State Fair at Syracuse and at the last Michigan State Fair. Our esteemed correspondent Calvin Sperry, has given his opinion of this Drill in the February number.

The person attending Seymour's Drill can readily see whether any of the teeth fail to deliver the grain regularly, as they are in plain sight. It sows wheat, oats, barley, corn, beans, peas, &c., and is also capable of sowing fine manures with grain, such as plaster, lime, and ashes. It can be changed, in a few minutes, from a drill to a broad-cast sower—an additional advantage. For further information we refer to our advertising pages.

* * *

The spirit of the Agricultural Press is abroad in the land. Wherever the cheap little monthly finds its way, it engenders thought and high expectations—and the mechanic's hammer falls to the tune of awakened ideas, and the plowman no longer "whistles from the want of thought," but he sings, "There's a good time coming, boys."—*Dr. Kennicott.*

QUINCES ON THORN, &c.

Messrs. Editors:—It may be of benefit to some of your readers, upon new farms, to know that they can raise good quinces upon the stock of the common thorn, in three years. My plan is, to take up a good thrifty thorn, from the field or some open spot, about an inch or so in diameter; set it out where I want it to stand, and graft quince into as many limbs as convenient; and they do well, growing about as much the first season as though the bush had not been removed.

I also succeed much better in raising cabbages by planting the seeds in the hills where they are to remain, scattering a good pinch of seeds in each hill, where I let them stand until large enough to transplant, when at various times I thin out and give plants to my neighbors, say from two to ten plants from each hill, until there are but two of the very best plants remaining in each, which I let stand until they are large enough to be out of the way of cut worms, &c., when the smallest remaining one is removed from each hill. The time for planting corn is about the right time for planting cabbage in this way. J. H. Andrus.—*Almont, Mich.*, 1850.

* * *

Simple Fastening for an Ox-cart.—*Messrs. Editors:*—I would like to describe a very simple fastening for an ox-cart, but none the less useful for being simple. We here give it the name of sward, although I consider it much more useful, as well as less dangerous, than most articles of that name. It consists merely of a bit of good timber one and a half by two inches, four feet in length, put through the tongue of the cart, and made fast by a small bolt passing through a mortice in the front sill, out side of the end board. If the sill is not of sufficient width to admit of a mortice, a staple driven in it will answer the same purpose. One of the greatest advantages to be derived from this fastening, consists in having several holes in the sward, so that the cart may be fastened in any position desired. I think that any one accustomed to drawing manure in a cart, will see the advantage of having it so fastened that it will not fall upon the tongue when it is not half unloaded to the great annoyance of the team. Willet Keese.—*Peru, N. Y.*, 1850.

Wheat Husbandry.

ANOTHER WORD ON THE CAUSE AND CURE OF SMUT IN WHEAT.

MESSRS. EDITORS:—I am an old Farmer, have been in the business of cultivating wheat for more than thirty years, and I have heretofore raised a large quantity of smut. At times my wheat crop would be one-third smut. I have tried all the preventives that I have seen recommended in the Farmer, without an entire cure; but for the last ten years I have raised no smut. I will now state my former practice when I did raise smut, and my present practice, and hope other farmers will try the experiment, and I think they will give up the practice of steeping their seed wheat in any solution whatever; neither will they need a sieve to separate the large seed from the small; if it is ripe and sound it will not bring smut.

I will now say that I formerly harvested my wheat very green, or in other words, before it was fully ripe, and made use of the same for seed, and from that seed I always raised plenty of smut. At length my *bump* of causality whispered to me, "You cut your seed wheat too green," and from that time I have selected the part of my wheat-field that ripens the evenest, and let it stand in the field until it is dead ripe and until the heads appear weather-beaten, and I have raised no smut since I followed the above rule.

Some seasons my wheat does not ripen even, and if I find a green head when I am cutting my seed wheat, I throw it out; for I am fully of the opinion that a small, unripe grain of wheat, if it vegetates at all, will bring smut. Such a grain contains but a very small particle of vitality, and a strong solution of salt, vitriol, or lime will sometimes destroy that vitality, so that the grain does not vegetate; and here is where farmers are mistaken—they suppose they destroy the smut, when in fact it is the unripe, sickly grain which produces smut, that they destroy.

I say again to my brother farmers, try it, and my word for it you will not be sorry. JACOB LOOP.—*Pontiac, Oak. Co., Mich., May,* 1850.

SMUT.

SEVERAL articles have appeared in the Genesee Farmer, taking opposite views as to the origin of smut. Without any endeavor to invalidate the theory of J. H. H., it may be well and profitable to examine the subject yet farther; and for that purpose the following facts and ideas are collected for the consideration of farmers and others afflicted with smut.

There are various groups of plants too minute for notice by casual observers, possessing a degree of vitality, under the most unfavorable conditions, and for a period, which claims our surprise. Of this class are mosses, which may be dried and laid by for years, and then if exposed to moisture, will, even in the late winter months, spread out their leaves and push up the seed vessels amid frost, and rain, and snow. They are sometimes so completely dried by drouth as to escape notice; and when in time they are moistened by rain, they appear to clothe suddenly a spot where they were never seen before. Another group of plants, more simple than the mosses, is seen in our far northern latitudes, but are noticed here to convince my brother farmers of the necessity for deeper study of our profession before we *adopt* any theory which has not the sanction of time and scientific inquiry. I allude to a greenish or reddish slime often seen on damp parts of hard surfaces, which, when examined with a microscope, is found to consist of minute cells, hardly connected, but imbedded in a sort of jelly. It is this substance which sometimes appears on the *surface of snow,* tinging extensive tracts with a deep crimson, and hence called *red snow.* This sometimes appears *so suddenly* and extensively as to induce the belief that it had fallen from the clouds; but its *growth* and productiveness are so rapid as easily to account for its appearance. This plant exhibits probably the very simplest form of vegetation; it obtains its nourishment by absorbing the fluid around, and grows and comes to maturity by means of the air and moisture with which it is in contact.

Now, this red snow seems but one step lower than the *Fungi*—a tribe of plants which includes mushrooms, toad-stools, puff-balls, blight, mildew, mould, and *smut.* These fungi differ, however, in their habits and characteristics, and have been heretofore too little heeded or observed by farmers. One characteristic is, that they will not grow unless fed with decaying animal or vegetable matter. And again, there are particular species which will appear only on particular substances—for instance, there is a species of mould, or fungus, which grows *only* on the surface of the dung of cats; it is peculiar, and no where else to be found. Many others might be named, but it is only necessary to say that tribes of plants have *their peculiar* species of *mould,* or *rust,* or *smut.*

The oft repeated appearance of the most simple fungi, such as mould and smut, upon all *spots favorable to their development,* has created the belief that they were spontaneously produced; but it is more reasonable to account for their production and diffusion by the means which nature has provided and adopted.

The fungi seem to direct all their energies to reproduction; their size is diminutive, but the number of germs are almost beyond computation. This is strikingly the case in the puff ball when ripe; the dust which issues consists entirely of germs for reproduction, each and all ready to develop a new fungus when meeting with a fit resting place. When the puff-ball is broken, countless numbers of these little seeds or germs are driven by the breeze or float in the air. By an attempt to count the number of germs in a ball, ten millions were computed; but this was probably only an approximation.

Not less minute are the seeds of *smut* when examined by a powerful magnifier—the germs are distinguishable as easily as those of the puff-ball. Let farmers examine smut for themselves, and if they find the facts as above stated, is it not rational, nay *most* rational, to believe that the seed thus profusely produced is readily communicated from one plant to another by adhesion of these minute seeds to the grain when it is threshed, also entering into the growing plants by their many pores, and surely it must be brought in connexion with the seed when sown, by the water of the soil trickling through it and carrying with it the countless millions of fungi seed which may have fallen from previous infected crops.

It may be objected, that the grain we sow can not take up solid matter, such as seeds; but when we examine water which to the eye is clear, we find it often full of matter and living things, and who shall say that growing wheat can not absorb through its pores, or vessels, matter so minute that the unaided human eye can not detect it. Here, then, we have various ways to account for the rapid and extensive spread of smut as a fungus; and as one more illustration of its minute character, and power of finding its way into invisible pores or channels, the following fact is given :—Wasps have *often* been seen in warm climates, flying about with plants projecting from some part of the surface of their bodies. Upon examination, these plants are fungi, which, which while floating in the air, have come in contact with the wasps, have entered the pores at their sides, and feeding on their moisture, develop a luxuriant vegetation. In time, this fungous growth spreads through the body, and destroys the life of the insect. Other and more curious instances might be presented: but if my brother farmers feel any interest in searching out the causes of mischief which assail them, and as among the number, SMUT, let me recommend the perusal of Carpenter's Physiology of Vegetables, and also Roget's Animal and Vegetable Physiology. OLD FARMER.—*Seneca County.*

CHESS.

MESSRS. EDITORS :—I am aware that the press, if not the public, have become tired of the chess controversy; still, I feel as if, under existing circumstances, I had a claim for this once to be heard. Nine years since, when the subject of the transmutation of wheat to chess was under discussion in the Genesee Farmer, Mr. C., then editor, (now deceased,) called for facts —"Give us facts," he said: "we want facts." I then prepared the following statement, and handed it to him: but the facts were not such as suited his theory, and they were not permitted to be published. However true the theory may be, that "like produces like,"—and I assent to it fully—still, to the common mind, one fact is worth a thousand theories.

On a farm formerly belonging to the writer of this article, a wood lot of several acres was hastily cleared up by contract. It was heavily timbered, having many hemlocks of prodigious size. It was rolling land, with knolls and hollows; and where trees had been overturned by the wind, there were basins, in which the water stood much of the time, except in the dry portion of the year. A neighbor obtained permission to sow one acre in the corner of the field, in order to raise a particular kind of seed wheat. The seed sown was obtained on an adjoining farm, by a daughter, who picked up single heads and rubbed them out by hand in the evening, until she had obtained a bushel. Of course it was absolutely pure and clean. At harvest time, the wheat on the high and dry portions of the ground was pure and excellent. In the hollows and basins, where the water accumulated and stood much of the year, little or no wheat appeared, but pure and abundant chess. Now, it is useless to say that chess was sown; for not a kernel was sown;—or that chess had lain dormant in the ground for years; for it had never before been tilled since the world was made;—or that birds of the air had dropped the seed; for if so, why did they deposit it in the wet places, and not on the dry ground? The inference is irresistable, that chess is *deteriorated wheat*—that it can produce its like, but can not regain the character from which it has fallen. It has not lost its vitality, or power of re-production; but it has lost some distinctive characteristic of the pure wheat, some portion of the vital principle that is necessary to re-produce the perfect grain.

But I have another fact. My men, in passing through a barley stubble with the plow a few times, carelessly turned a few furrows in spots, for a short distance. Presently some rank and luxurious tufts or bunches of barley sprung up. On examination, I found that clusters of barley heads had been collected together under the furrow, probably by the mice or small squirrel. The seed had vegetated, the small roots were abundant, the barley heads were perfect, and the green tufts sprung up from the heads. They were protected and watched by me, solely with the view of ascertaining whether barley sown in the fall would live through the winter, and thus become a winter grain. It did live, and flourished equal to wheat; but at harvest time it was all chess!

These are facts, which I submit to the advocate of first principles and fundamental laws, to be reconciled as best they may be. To the practical farmer they are satisfactory proof that wheat can degenerate into chess. The influence of this opinion, in its practical results, will be to induce farmers to sow pure wheat on dry and good ground, in the expectation of pure wheat in return, if the season and soil are favorable; and to avoid sowing chess, in the certainty, if they do sow it, of receiving chess in return, be the soil or the season what they may. Yours, &c., E.

Our readers need not fear that we are about to give them a new edition of the *Chess* question. The above article was written by an old Onondaga county farmer, now too far advanced in years to hold the plow, but who feels a lively interest in all that pertains to the improvement of the agriculture of the country. Its publication will gratify our aged friend, and we doubt not, interest our readers.—EDS.

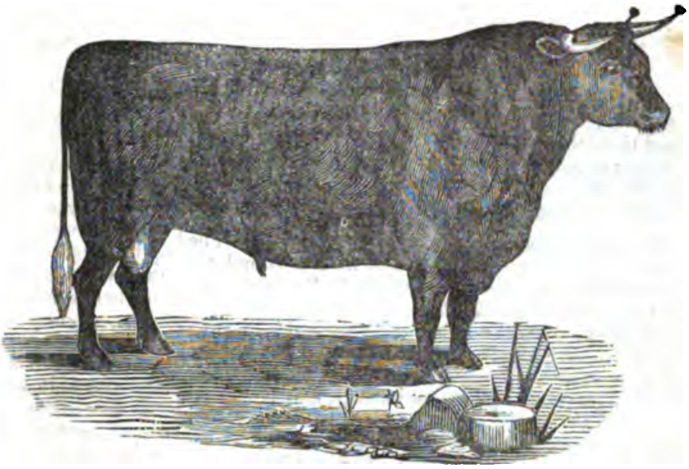
ELDER.—GAPES.

EDS. FARMER:—I would respectfully request either of you, or some of your correspondents, to advise me of the most speedy and effectual way to extirpate the common dwarf elder. I have tried frequent cutting and grubbing, (though perhaps not frequent enough,) with only partial success. I would also be very glad and thankful to receive, through the medium of the Farmer, information how to prevent the *gapes* in chickens, with which above one-half of mine die.—ISAAC CHILD.—*Indian Spring, Pa., June,* 1850.

The destruction of elder we prefer, for the present at least, to leave with our correspondents; and we hope some of them will give us the benefit of their experience in season for our next issue.

In searching for a preventive of any disease, the first and most important point is, to ascertain the *cause*. This accomplished, the preventive naturally and easily follows. The *gapes* in chickens is caused by a want of attention to cleanliness and comfort —wet or ill-ventilated fowl-houses, ill feeding, bad water, or confinement to a small spot of ground without access to gravel and fresh earth. The preventive would be, of course, the reverse of this treatment. It should be remembered that this disease is epidemic, and as soon as one is affected, it should be separated from the flock. In its first stages it may be cured by a little fresh butter and Cayenne pepper, which the subject should be compelled to swallow. If the disease is far advanced, a good plan is to force a feather saturated with turpentine, down its throat, turning it round while there. This repeated once or twice, if necessary, will generally effect a cure.

DEVON CATTLE.



DEVON BULL "HOLKHAM."

The annexed engraving is a portrait of the Devon Bull *Holkham*, bred by A. Bronson, Esq., of Oneida county, N. Y., and now owned by L. Crane, of Marshall, N. Y. He is a descendant of the *Coke Devon Bull Holkham*, from his resemblance to which he takes his name. He received the first premium of the Oneida County Agricultural Society when a calf, also at one year old, and at two and three years old. The owner gives the following description: "Head small; eye large, clear, prominent, and encircled with the yellow ring; muzzle fine; nostrils wide, high, open, and encircled with white; horns polished, pointing forward and upward, and of a medium size at the base, and tapering, tipped with black; ears small, of an orange color within, and bordered with grey hairs. Neck fine and well placed on the shoulders; chest broad, barrel hooped and deep, and well ribbed home to the hips; back straight from the withers to the setting on of the tail; tail long, slender, and set high, with the white bush; hide thin and moveable, mellow, well covered with soft and fine hair; fore-arm large and powerful; legs short and straight, swelling and full above the knee and fine below it; hind quarters long and well filled up."

It is generally admitted that this breed of cattle is very easily kept and easy to fatten. Martin, in his (English) work on the *Ox*, speaking of this point, says: "During the summer the commons and wild moorlands supply a sufficiency of food; and when in their winter sheds, chopped straw, furze, heath, and other coarse herbage, are sufficient. Hence these cattle are maintained at very little cost, and as they yield a fair quantity of milk, and when put upon moderately good fare, rapidly fatten, they will suit the small farmer, perhaps half-farmer half-fisherman, in a bleak mountain-district, over which the ocean tempest is driven so frequently."

Allen, in his *Domestic Animals*, bears evidence of the same fact: "No animal is better suited to our scanty or luxuriant hill pastures than the Devon, and none make a better return for the attention and food received. They ensure a rapid improvement when mixed with other cattle, imparting their color and characteristics in an eminent degree."

The cows invariably yield milk of great richness, and when appropriately bred, none surpass them for the quantity of butter and cheese it yields. Mr. Bloomfield, the manager of the late Lord Leicester's estate at Holkham, has, by careful attention, somewhat increased the size without impairing the beauty of their form, and so successful has he been in developing their milking properties, that his average product of butter from each cow is four pounds per week for the whole year. He has challenged England to milk an equal number of cows of any breed, against forty pure Devons, to be selected out of his own herd, without as yet having found a competitor. Although this is not a test of their merits, and by no means decides their superiority, yet it shows the great confidence reposed in them by their owner. The Devon ox, under six years old, has come up to a nett dead weight of 1,593 lbs.; and at three years and seven months, to 1,316 lbs., with 160 lbs. of rough tallow.

S. W.'S NOTES FOR THE MONTH.

The Season and the Crops.—Up to the 2d of June we have not had a single warm day. On the 3d of June, for the first time this year, the thermometer rose to 85° in the shade. From that day to this (the 10th,) we have had fine, growing, summer weather, with a few very warm nights. Our champaign country is now in the full bloom of rapidly progressive vegetation. Wheat and grass look well; potatoes, which cover a large space this season, ditto; Indian corn, so long stationary or unseen, now goes ahead with recuperated powers, as though its roots had increased and extended while its leaf was sickly and yellow. In the higher and more hilly regions of New York, vegetation just now is much more homely and backward. But every dog will have his day; in July and August, when we are sun struck, dried up, our pastures hardly sufficient to afford a nibble to a flock of sheep, the higher dairy lands will be in all their glory—white clover half-leg high, springs of cold soft water from the granite hills coursing fields which are the Paradise of cows. Then the butter, so hard, compact, and yellow—what a clover perfume and flavor!—how unlike our soft, greasy compound—call it anything but butter—the product of churnings of long and warm kept, decomposed, many colored creams! Then the big cheeses—often two made in one day—too heavy for one woman to turn; but here the men turn too and help; and every girl seems to be intuitively aware that to be a graceful, expert milker, is at least to be something better than a *mal adroit*, slovenly pretender, in folly and fashion's school!

Wordsworth, the poet of Rydal, is dead. The factitious title of Poet Laureat ill-befitted either his life or character; for he was emphatically a rural poet. Eschewing both the classical heroic and Della Cruscan school of poetry, he gave himself up to the gentle yet profound influences of his own lake and mountain scenery. It is said of him, that the love of nature "was an appetite" which "haunted him like a passion." Perhaps it might better have been said, that the love of nature was

> ——"born in him, with him so intense,
> It was his very spirit, not a sense."

Let every farmer who would make the most of the good that surrounds him—

> "Find tongues in trees, books in the running brooks,
> Sermons in stones, and good in every thing"—

buy **Wordsworth**'s poems.

Prices of our Agricultural Products. — The late rise in the price of corn and flour is stimulated by the recent demand for shipment to England; but as the late rise in England is owing to a present short supply from the Baltic and the Black sea, and to the fear of the effect of present bad weather on growing crops; a subsequent decline, on the return of fair weather and increased imports, may be anticipated. There are, however, other causes which must keep up prices in the United States until after the next harvest. The wheat crop of great wheat-growing Ohio was a failure last year, while the home demand, increased by immigration, has been unprecedented. Strange to say, the great valley of the Mississippi is now importing bread-stuffs from the lakes, through the Chicago canal and the circuitous Illinois River. The St. Louis Repub. says that they are now receiving by that route, flour, wheat, corn, oats, barley, and potatoes. This does not look as though the farmers of the great west were suffering very much just now for the want of a home market. The farmers of our country are under great obligations to Sir **Robert Peel**, under whose ministry the British government was induced to make such a concession to free trade as to admit American provisions, butter, cheese, lard, &c., into Great Britain under very low duties. The subsequent abrogation of the sliding scale of corn law duties, which taxed foreign corn out of the market, unless its home cost approached famine prices, has created a powerful opposition to free trade in corn, by the so called "landed interest" of Great Britain. 'Tis hard for the aristocratic landlord to retrench in his great and multiform expenses and luxurious style of living; and although the farmer tenant may consent to give up his bottle of port with his dinner, he can not yet dispense with his horse and gig. Hence there is left to him no other way of paying his rent under the present prices, but to pinch his farm laborers in their wages to a stipend that has already driven them to the brink of starvation! Some benevolent writers in England and Scotland have endeavored to show the landlord how much it is to his interest to give the farmer more liberal covenants, and to teach the farmer how he may live and feed his working force under such covenants, with the adoption of better economy and a *higher* and better mode of farming. Against Mr. **Caird**, one of these writers, Blackwood, (now the landlord's exponent,) in the April nnmber of that magazine, comes out with an elaborately furious article, entitled "Caird's high farming harrowed." I have not seen Mr. **Caird**'s pamphlet, but if we may judge from the floundering of the great Philistine, little David must have struck at his life. By a curious coincidence in the theory of political economy, we on this side the Atlantic, and Blackwood on the other, arrive at the same conclusion;—while we urge that our well paid operatives can not compete with the half paid laborers of England, Blackwood says that the "British farmer who pays taxes, can not compete with the foreign *serf* who pays no taxes at all." In both cases we have left to us the lamentable conclusion, that the argument aims an unerring shaft at God's poor, in whatever hemisphere their lot may be cast, just as though they had no right in the good things of this world of ours!

The Progress of Rural Taste. — A sterling farmer, who can both say and do, writes in the Seneca Observer, that on a visit to his neighbor, last week, he was "surprised to see the ground spaded up in front of the house, and laid out in regular beds for flowers and shrubs." This space, he says, "had ever before been covered with plantains, sorrel, and other unsightly weeds." But what a wet blanket the "old farmer" throws on our imagination, now about to invest the fair inmates of that house with a true love and enthusiasm for flowers, when he tells us that the paltry dollars, the premium offered by our county society for the best boquet, gave the primary impulse to this ever to be praised reform. But, as the Methodists say, a good tune is none the worse for having originated with the devil. One word more in relation to our Seneca county premium for flowers. I have been asked by more than one of the single fair, whose ages are on the shady side of five and twenty, why the prizes are thus invidiously offered only to those girls who have the good fortune to be on the sunny side of that now climacteric number. Did the committee think that she who could pass her 25th birth-day without appropriating a husband, would be alike insensible to the beauties of that floral creation which heirs not the grossness of flesh and blood? If they do, I confess that all my experience leads to the very opposite conclusion.

A REMEDY FOR IGNORANCE.

Messrs. Editors: — I am sorry to hear your correspondent "W. T." condemn your most valuable paper because it is too scientific, or because you use terms which he can not understand; and I hope you will not restrain your scientific analyses because a very few of your readers do not understand the phrases which you necessarily use; and I dare assert that those who can justly claim the proud title of a farmer, will, if they meet with a term which they can not comprehend, study out the meaning, instead of sitting down and bewailing their ignorance.

"W. T." seems to think that there are a great number of your readers who do not understand "the phrases you use in analysing soils;" and if such be the fact, it is a disease, for which I wish to propose a remedy. It is not a year since I commenced reading your paper, and at that time I was in the same dilemma which my friend seems to be in; but I was ashamed either to present my ignorance before the public as some have done, or to keep it secret, and was incited to the study of chemistry, which I set myself about with all dilligence. Now, I would say to my brother reader, and to all who do not understand their profession, "go and do likewise."

Again: "W. T." asks, "What will our grandchildren think, when looking into a volume of the Genesee Farmer they see an advertisement with bolus and bottles?" I would say, in answer, that if they should see *his* article, while perusing the Farmer, they would laugh at his folly, and rejoice in their superiority over their ancestor. B. L. N.—*Madison Co., N. Y.*

BEES.—No. 1.

As the articles that I now purpose writing will be a brief exposition of the principal characteristics and proper management of the Honey Bee, and which will probably be read by many who have never seen a treatise on the subject, it will be necessary, as a preliminary elucidation, to state what most prominently pertains to the three classes of bees comprising every family, in regard to their physiology and domestic economy; yet from necessity, I must be very brief in a publication of this kind.

A family of bees consists of a *queen, workers,* and *drones.* The queen is the mother of all the increase of every hive. She alone produces the eggs from which some 30,000 bees emerge every season! This amazing fecundity may truly excite our surprise, yet analogy shows many parallels in the insect tribes. In strong, populous families, she seldom ceases laying during the entire year. If a hive well filled with bees be examined in the dead of winter, brood will be found to some extent. She commences her spring laying in March or April, according to the mildness of the season, and during the month of May produces 200 eggs per day! Her office is solely to deposit the eggs in the cells, which she does at the extreme end of each, where a triangular cavity receives them. At each deposit, a whitish fluid accompanies the egg to cause it to adhere to its locality. Thus the queen passes quickly from cell to cell, in the execution of her task, independent of any attention being paid to her by the workers, on account of her royalty, save a respectful opening of a free passage as she advances. These facts have been verified by the use of *observatory* hives, with glass sides, and only a single leaf of comb.

The workers are the laborers of the association. They build the combs, gather the pollen [bee-bread] and the honey, and all labor pertaining to the family devolves upon them. They learn nothing from *experience*—nothing from age; but come forth from their cells perfect in all their arts. What took ages for mathematicians to compass, by a waste of "midnight oil," the little bee was master of as she sang her song of merry contentment, while quaffing the melifluous nectar from the spontaneous profusion of the garden of Eden. The wonders of her architecture I must reserve for a separate article. It has been said that there is an especial class among the workers, for each separate duty, which class can perform no other labor, save that which nature has assigned to them. This is not the case. The workers can lend a hand at any work. The honey-gatherer of to-day may be collecting pollen to-morrow, and the next day fabricating combs, feeding the young brood, or acting as sentinels at the entrance of the hive; but their change of duties is systematic, and governed by instinctive laws among them. This is the only law that governs an association of bees, and it is a law that needs no "amendments." Their constitution is implanted in the censorium—the acme of perfection, so far as regards the operations of this insect; and while man errs in his architecture, even though master of his profession, the bee never does.

The *sex* of workers is a matter of interest. They are neither males nor females, a singularity in nature belonging to this class of insects only. They have the rudiments of ovaries, but not fully developed; yet in certain peculiar cases, fertile workers do exist, as is supposed by many apiarians; yet this fact has never been set at rest. **Huber,** the German naturalist and apiarian, is the founder of this theory; yet he was blind, and trusted entirely to an assistant for his discoveries. I shall speak at length on these alleged fertile workers, probably; but let it be understood that the queen is the grand source of increase, and if rare instances of workers have been found in which some very few have been known to deposit eggs, the increase from this source is so very small that we look upon it rather as a phenomenon of nature, than as a legitimate source of fecundity.

The *drones* are a class that exist but a few weeks in the family. These are the males, and there is much mystery hanging over the duties pertaining to this class of bees. Some people consider them entirely useless—even a serious disadvantage to the association, and hives have been invented with an eye to exclude them from their tenements, while the workers can, from their diminutive size, easily enter. And when I think of the folly of such persons, who believe in ridding their hives of this class before the season allotted by nature—the God of nature, who knows as much as they do, and perhaps a little more—I feel that it is "casting pearls before swine," to endeavor to eradicate their ignorance. I shall devote my next to this highly important and interesting part of my subject. T. B. Miner,

Author of the American Bee-Keeper's Manual.

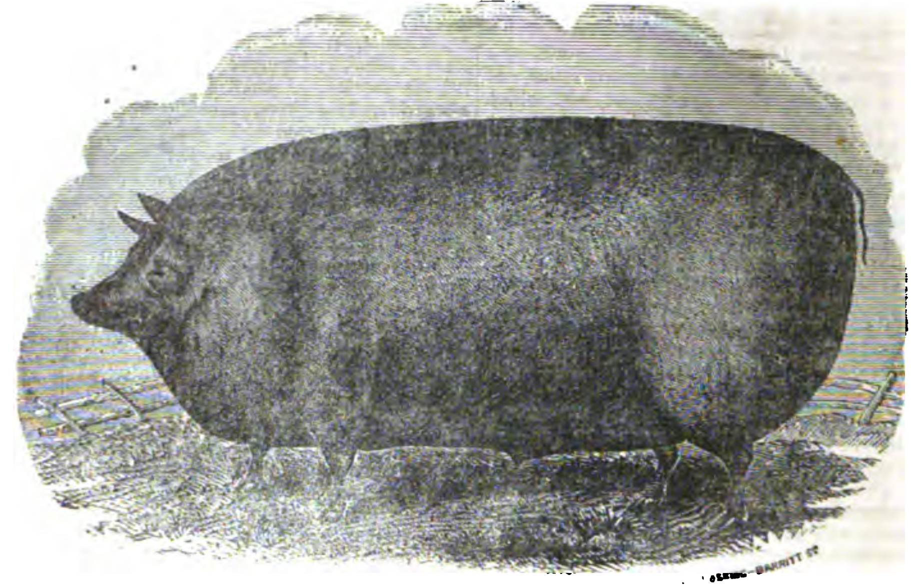
Clinton, Oneida Co., N. Y., 1850.

SWINE.

The first swine of which we can find any reliable account, as having made much improvement in the stock of the United States, was a pair of pigs sent by the Duke of Bedford to Gen. **Washington,** by a Mr. **Parkinson,** an English farmer, who came to this country in 179–. He leased a farm in the vicinity of Baltimore, Maryland, where he resided some time. Instead of delivering these pigs to **Washington,** he dishonestly sold them. They were generally called the "Woburn," or "Bedford" breed," but in some districts in this country, they were known by the name of the "Parkinson hog." They originated at Woburn, the estate of the Duke of Bedford, and were produced by a cross of the Chinese boar on the large English hog. In their perfection they were a splendid breed; being fine in their points, of deep, round carcass, short legs, and thin hair. They kept easily, and matured early. At 12 to 30 months old, they usually weighed from 300 to 600 lbs. They had light offal, and their meat was of the first quality. Their color was white, broken more or less with dark blue or ash-colored spots. The steward of the Duke of Bedford informed us, in 1841, that the true breed in England had become extinct several years before; and we believe its purity is no longer known in the United States.

The "Byfield," sometimes known as the "Grass breed," derives its first name from the circumstance of a farmer in the town of Byfield, Mass., about 30 years ago, accidentally picking up a pretty pig one day in the market, and taking it home and breeding from it. The progeny proved to be fine and quiet little animals; but in consequence of their rarely attaining over 250 to 300 lbs. weight, full grown, and being rather shy breeders, they were soon given up as too small and unprofitable for the general purposes of the farmer. Their color was pure white.

Capt. **John Mackay** of Boston, Mass., produced a



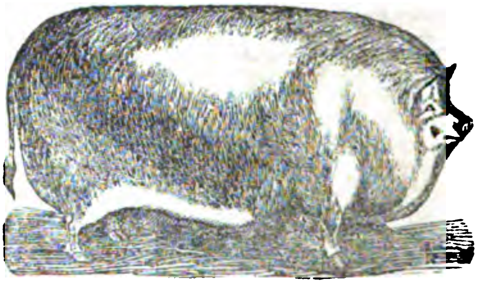
superior breed of swine, about the year 1825, by judiciously crossing various excellent animals, which he had the good taste and enterprise to select and bring home in his voyages from various quarters of the globe. It is said that the pigs from which he derived the greatest benefit in establishing his breed, came from China. This breed was given the name of "Mackay," in honor of its originator.

The Spanish black hogs, from the Mediterranean, brought over by Commodore Chauncey and other naval officers, have been sources of considerable improvement along the Atlantic coast. Then we have had the Norfolk Thin-rind, the Leicestershire, the Lincolnshire, the Hampshire, the Yorkshire, the English and Irish Grazier, the French, the Swiss, the German, the Neapolitan, the Russian, the Calcutta, and time would fail to tell how many more breeds, if we undertook to enumerate them all.

The breed of pigs which has been more widely spread, and exercised a greater influence in giving shape and character to the swine of the United States than any other, is the Berkshire. The first was imported from England, in 1823, by the late Mr. John Brentnall. He was an English farmer, and settled in Canterbury, Orange county, N. Y. The next importation of Berkshires was in the autumn of 1832, by Mr. Siday Hawes, who resided on the Three-Hills Farm (since owned by Mr. Bement,) in Albany, N. Y. In 1833 and '35, he made other importations; and after his return to England, in 1838, he sent out others in 1839. Subsequent to this, Messrs. Bagg & Wait of Montgomery, Orange county, N. Y., made large importations of Berkshires, both here and into the south and west. In 1841, we imported upward of forty head of this superior breed.

The Berkshires are so well known, that we need not describe them. Notwithstanding the disappointment and prejudices of some, we say emphatically, that taking them all in all, we still think those which are well bred, the best farmer's hog ever imported into, or reared in, this country. They are a particularly valuable breed for the west, as they have proved themselves better travellers than any others, when driven over the mountains to a distant market. This is an important consideration; and when Berkshires can no longer be found, they will be more highly thought of than ever, and the farmers will seek, when it is too late, to get into the breed again.

In 1841, Mr. William Stickney of Boston, imported a pair of Suffolk pigs, which he has followed up by other importations, nearly every year since. His hogs are of medium size, of a white color, very fine in all their points, with deep full chests, round bodies, thick hams, and short legs. They are docile, thrifty, mature early, and are easily kept. Their pork is considered very delicate and fine. They will weigh from 200 to 450 lbs. at 12 to 18 months old. This breed of swine, some few of which occasionally come up as high as 500 pounds, is beginning to be pretty well known; and as they are of a favorite color, we think they are destined to be widely disseminated.



We now present our readers with the portraits of two pigs, which we think very perfect of their kind. The large one is a good representation of a choice hog for a farmer, weighing from 400 to 500 pounds. it is an excellent model to go by, and every farmer ought to have it before him as a guide in breeding. The best Suffolks, well fatted, nearly resemble this; so also do the Berkshires, except that they are inclined to be somewhat steeper in the rump. The small one is exactly like the improved Chinese, and would not be a bad portrait for a small, well fatted Suffolk or Berkshire.—*Am. Agriculturist.*

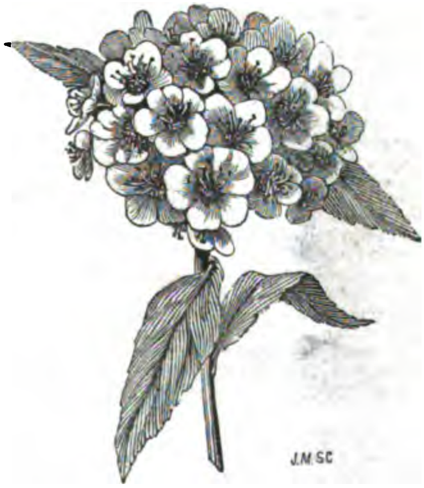
Horticultural Department.

EDITED BY P. BARRY.

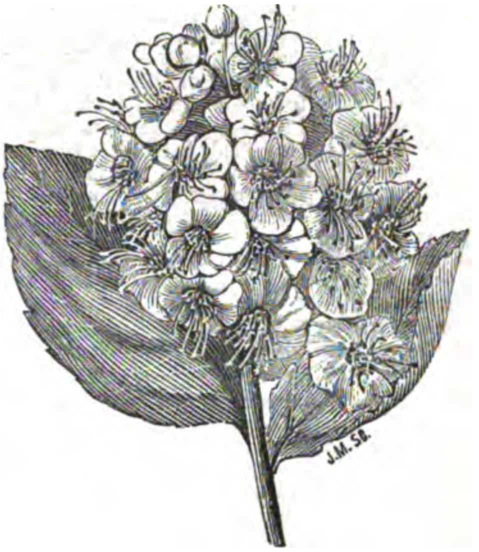
TWO FINE FLOWERING SHRUBS.

AMONG the multitude of flowering shrubs that embellish so highly the months of May and June, the genus *spiræa* is worthy of a prominent place. Already our collections number some ten or twelve species that bloom at this season, and all so hardy and so easy of culture as to succeed every where, and under any sort of management. The new double flowering Japan species introduced a few years ago, and which we noticed in our volume for 1849, has proved a decided acquisition. It is hardy, forms a small compact shrub, and is increased and cultivated with the greatest ease. Its pretty, double, white flowers, resemble those of the double thorn and sloe.

We have now to notice two other species, combining so many good qualities, beauty, hardiness, &c., &c., that we can cheerfully recommend them to all who are making collections of select hardy shrubs.



LANCE-LEAVED OR GARLAND SPIRÆA. *Spiræa lanceolata.*—A shrub attaining four or five feet in height, with slender, spreading branches, and long spear-shaped leaves slightly lobed, and dentated, or toothed. The flowers are produced in clusters, or corymbs, forty or fifty in number, each nearly as large as a wood strawberry blossom, the whole cluster measuring two to three inches in diameter, according to the vigor of the plant. These corymbs are slightly globular, and are produced on lateral shoots four or five inches long, on the whole length of the branches, and so closely that every branch is a garland of snowy whiteness, showing with great effect on a lawn or border. It is propagated from layers or cuttings of the young wood; and plants not over three inches in height blossom. This season it commenced to bloom about the first of this month, and is now (18th June) in full perfection, with the appearance of lasting two or three weeks longer. The annexed figure, though imperfect, conveys some idea of a single cluster of the blossoms; but it does the plant injustice to show less than a whole branch.



ELM-LEAVED SPIRÆA. *Spiræa ulmifolia.*—This attains a larger size than the other, say eight or ten feet; said to be from Carniola, a province of Austria. The branches are stout and erect, leaves oval-oblong and toothed, or serrated, bearing some resemblance to the foliage of some species of the elm. The flowers are produced on lateral shoots six or eight inches long, on the whole length of last year's branches, and like the branches, stand erect. The flowers are a trifle larger than the lance-leaved, and are produced in pyramidal clusters of forty or fifty flowers in each. The stamens being very numerous and longer than the petals, which is not the case in *lanceolata*, dim the whiteness of the flower, which would be otherwise snowy white. When compared with the *lanceolata*, it is at once distinguished by a comparative coarseness in all its parts. The shoots are stronger and more erect; foliage larger and rounder; flower shoots not so numerous; heads of flowers larger, more pyramidal; flowers larger, more reflexed; stamens longer. In all the parts, indeed, there are very important and striking differences. Propagated in the same way as the other, and blooms exactly at the same time, but does not last quite so long. The above engraving of this is quite imperfect, not showing the pyramidal form of the cluster of flowers; the leaves also are below the natural size.

There are several other species of Spiræa, both shrubby and herbaceous, that we consider highly desirable ornamental plants, and we shall hereafter take occasion to notice them.

FRENCH MANAGEMENT OF PEAR TREES.

We have before had occasion to remark, that the French understand the culture and management of garden fruit trees better than any other people in the world, and we have often wondered why England, so industrious, so persevering, in gleaning materials from all parts of the world for the advancement of horticulture, should so long have neglected to benefit by their beautiful and perfect system. In no other country has the subject of fruits and fruit trees received more attention than in England. Walls, borders, training, pruning, &c., have been unceasing themes of investigation and discussion among their best practical and scientific cultivators, for centuries. No pains or expense have been spared in experiments on the subject; but as yet their success is very limited. To be sure their climate, for some fruits, is very unfavorable; but at the same time their system is defective. The fruit garden at Chiswick shows this at a glance, and it seems they begin to feel conscious of it now. They would have felt it long ago, if the nurserymen and cultivators had taken a trip now and again across the channel, and examined the fruit trees of France and Belgium. It unfortunately happens with too many of the English cultivators, that they imagine whatever is not known of gardening in England, is *not worth knowing at all*. This feeling of self-sufficiency operates injuriously on nations as well as individuals, and is no doubt one of the causes why a great many nice points in continental horticulture seem quite unknown in England.

Mr. Rivers, whose name is now quite familiar to us all in this country, having a greater share of enterprise than most of his contemporaries, commenced visiting the continent a number of years ago, and ever since, almost alone, has been urging upon his countrymen the adoption of the French mode of managing garden trees. He was at first laughed at and ridiculed by British gardeners; but his trees soon spoke for themselves, and confounded all the wise arguments of "practical" men. Mr. Rivers has consequently, for the last seven years, done more business in fruit trees than all the other English nurserymen besides. At length the Horticultural Society of London—the greatest institution of the kind in the world—has actually condescended to consider the subject, and after mature deliberation, agreed to send the conductor of their fruit and kitchen department to inspect the French gardens, and look into their system of management. Accordingly, Mr. Robert Thompson started on the 27th of February last, crossed the channel, and made a visit to the *Jardin des Plantes* and the *Gardens of the Luxembourg*. No man could have been sent better qualified to understand and appreciate what might come under his notice, consequently he has presented the Society with a very excellent and valuable report, which has been published in the Society's Journal. We have not space now for all of the report relative to fruit trees, but give the following extract, which being mostly on summer management, seems at this time seasonable:

> The pyramidial trained pear trees are from 10 to 15 feet high, or more, having a regularly tapering outline from the base to the top, where they terminate in a single shoot.—The young plant is stopped according to its strength, and so as to furnish side branches. These are not in stages at uniform distances along the stem; on the contrary, almost every shoot which breaks out from the stem is allowed to grow: but the laterals produced on these are pinched in summer, and even such of the leading shoots as appear likely to become too strong for the others are stopped.
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> All the cultivators from whom I had an opportunity of obtaining their opinion on the subject, admitted the advantages of summer pinching; whilst some regretted that circumstances prevented them from practicing it to the extent they could wish. It is however well followed up by M. Cappe. He pinches all the young shoots not required to form branches, when in a very young state; when they have scarcely pushed a finger's length, they are shortened to about an inch, or from that to an inch and a half. The portion left forms the basis of one or more fruit buds, bearing fruit in the following season, or a spur on which blossom buds are formed for bearing in the second season.
>
> The advantages consequent on properly managing fruit trees with regard to summer pinching, are so important that attention to the subject cannot be too strongly urged. On the whole, it occasions little or no loss of time; for the confusion which would otherwise accrue is prevented; and this being the case, it is only doing that in summer which, if neglected, would occasion as much loss of time in winter. I am aware that many have more time to attend to trees in winter than in summer; but let the advantages of summer pinching be experienced, and doubtless, in most cases, due provision will be made for its performance. By the operation, the shoots necessary to be retained have the great advantage of more light and air than would be the case if crowded by a multiplicity of laterals, retained till the time of winter pruning, when they must obviously be cut off, either so close as to leave no bud to push, or shortened to within a few eyes of their bases. In the former case the branch is left naked; in the latter, when the tree is sufficiently vigorous, the eyes left generally push other shoots to be again cut back in winter; and thus crops of shoots are annually produced, instead of fruit, for many years, or until the tree approaches the state of old age.
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> The plan which M. Cappe pursues succeeds admirably in the climate of Paris. The fruit on the pyramid pear trees under his management is stated, on competent authority, to have been last year exceedingly abundant, large and fine.—This season the trees are healthy and vigorous, and well furnished with blossom buds. It may be said that the generally dry, clear air of Paris, is very different from the cloudy and moist climate of many parts of Britain; the one being favorable for the formation of fruit buds, whilst the other favors the growth of wood and leaves; and therefore, circumstances being different, the same practice may not be equally proper for both. There are, moreover, instances of circumstances differing so widely as to require opposite methods of culture. But this does not hold good as regards summer pinching. In England the drawback is a dull atmosphere; the shoots and foliage want more air and light. Summer pinching affords this, inasmuch as it prevents the crowding and shading of wood and leaves necessary to be retained, by that which is superfluous: and therefore it must be considered of still greater utility in dull climates than in bright, more necessary in England than in France. It is generally admitted that "where nature does most, man does least;" but with regard to the management of fruit trees an exception must rest till summer pruning receives as much attention in England as it does in the Jardin des Plantes, and elsewhere in France.
>
> Supposing the branches of a tree are properly thinned and regulated at the winter pruning, and that so far as they extend, their number is quite sufficient for the space they occupy; presuming, also, that the tree is in good health, a number of laterals are sure to spring. They are, of course, superfluous; and every one of them should be pinched as already mentioned. If the last year's shoot has been shortened at the winter pruning, then, besides the terminal one on the part left, one, two, or three next to it are almost sure to push; and these, M. Cappe commences to check, by pinching, when about three inches in length; but those nearer the base of the shoot he allows to grow till they attain the length of six or eight inches before he shortens them. The terminal bud is of course allowed to go on for the prolongation of the branch. It frequently happens in France, and the liability will be still greater in the climate of England, that after a shoot is pinched back, the newly-formed buds on the part left will push a secondary shoot in the same season. When this is the case with those under the care of M. Cappe, he also pinches these secondary shoots to an inch or an inch and a half from where they originate. They rarely push again; but if they do, their growths are again reduced as before.

The *winter pruning* of pyramid pear trees is almost reduced to a mechanical operation, when the summer management has been properly attended to. Keeping the tapering form in view it consists in cutting each shoot a little shorter than the one immediately below it, taking care to cut a bud situated on the side of the shoot towards that direction in which it would be most desirable the prolongation should proceed. Shoots that are too vigorous for the rest are not cut to a bud on the upper side, but to one situated below.

PROCEEDINGS OF THE SECOND CONGRESS OF FRUIT GROWERS.

The late, unseasonable period at which the report of these proceedings has appeared, and the near approach of another meeting of the Congress, render a minute review at this time, of little use. A list of the fruits adopted, or recommended for general cultivation, has already been published in the Farmer, so that we shall at present extract only a few items of general interest to fruit growers, at all seasons. Last season was highly unfavorable throughout a great portion of the country, for the preparation of pomological reports, consequently but few were presented, and these were rather meagre in their contents. We shall notice only a few of the most interesting points.

Pennsylvania.—The committee of this State, in their report, notice six native apples and twenty native pears of merit, and some of which are already known to be first rate. Among the pears we find the *Seckel*, *Tyson*, *Washington*, and *Petre*; all the rest are new or very little known. They state that the *Gray* and *White Doyenne*, both of which *here* can not be surpassed, are utterly worthless, unless in towns, where they still do well, "maturing fruit of beautiful appearance and excellent quality." The market raspberry of Philadelphia they state to be the "*Genesee*," our *spurious Red Antwerp*. The true *Antwerp* requires protection.

New York.—The only report from this State is by B. Hodge, Esq., of Buffalo, consisting of lists of about thirty apples, thirty pears, twenty cherries, fifteen plums, and twelve peaches, which he considers the best for Western New York. Mr. Hodge says that the *Brown Beurre* and *Bezy de la Motte*, (both of which are worthless in many localities,) are superior to three-fourths of the varieties in cultivation, very productive, and of good flavor. At Philadelphia the *Bezy de la Motte* is an outcast; and at best we consider it uncertain. The *Brown Beurre* does finely here.

Massachusetts.—The committee of this State simply reported lists of fruits to be placed upon both the approved and rejected lists. The approved sorts were all added to the recommended lists of the Congress. The rejected varieties consisted of about one hundred and twenty pears and ten apples, very few of which have ever been known or cultivated to any considerable extent.

Vermont.—The report from this State is made by C. Goodrich, Esq., of Burlington. He states that the *Ribston Pippin* and English apples generally flourish well, and also the Canada sorts *St. Lawrence*, *Pomme Gris*, and *Bourassa*. The *Esopus Spitzenburg* is apt to be spotted, and for that climate is not equal to the *Baldwin*, *Hubbardson Nonsuch*, *R. I. Greening*, and *Roxbury Russet*. Among pears, the *White Doyenne* is always fine and the trees healthy. *Dearborn's Seedling* is considered the best summer pear.

Connecticut.—The report from this State is quite comprehensive, treating of all the fruits cultivated there except apples, the report on which is deferred till another year. It appears that, excepting a few drawbacks, all sorts of fruit succeed there very well. The *Antwerp* raspberries are too tender, and gooseberries are liable to mildew. Peaches are so affected with the yellows, that in many cases they do not live to a bearing age; and if they bear at all, only for one or two seasons. Mr. Downing, the chairman of the general fruit committee, adds the following note to this part of the report:

> "The explanation of the great prevalence of the *yellows* in Connecticut lies, we imagine, in the fact of the large introduction, of later years, of unhealthy trees bought indiscriminately in the markets of New York. A little attention to destroying every tree already affected, and introducing those of healthy constitution from other districts, will very soon result in the production of the finest fruit again, as has been abundantly proved in many parts of the State of New York."

Much attention seems to be given to the pear culture. A large number of seedlings have been originated in New Haven and neighboring towns, among which the *Calhoun*, *Howell*, *Citron*, *Dallas*, *Henrietta*, *Elizabeth*, &c., are spoken of as being nearly first rate. The "*White Doyenne*" is noted "not good." The committee remarks that, "Quince stocks for pears, especially for the garden, are coming very much into favor. The fruit appears to be fairer, handsomer, and better than when upon pear stocks. Pear trees with us appear to be entirely exempt from disease." Apricots are in all cases trained to some building, and have been observed on the north, south and east sides, doing well in each aspect.

Maine.—According to the report of the committee, the people of this State are but beginning to turn their attention, in a general way, to fruit culture. The apple, plum, and gooseberry, succeed well, the latter particularly — better than in any other State in the Union; the cool northern climate suits its constitution. The quince has only been known to succeed on the banks of the Kennebec. The peach proves a failure in the open ground.

Ohio.—The scarcity of fruit there, as elsewhere, last season, prevented the committee of this State from making a general report; but Mr. McIntosh of Cleveland, reports on his own responsibility a list of about twenty apples, fifteen pears, fourteen cherries, a dozen peaches, half a dozen plums, &c., that succeed well. With very few exceptions, they are all on the list recommended by the Congress.

Missouri.—The committee of this State report a very destructive prevalence of the pear blight — so much so, that they fear it will not leave a tree living in the country. Our best keeping apples, such as *Greening*, *Jonathan*, *Roxbury Russet*, &c., are there fall apples, owing to the difference of climate. The three best apples, one for each season, they state to be *Early Red Margaret*, *Rambo*, and *Rawle's Janet*. The best grape they have yet tested for wine, is the *Catawba*. Peaches do well. Plums are short lived. *Duke* and *Morello* cherries succeed well, but the free-growing sorts are short lived. The quince succeeds poorly.

Iowa.—In this new State horticulture is taking root vigorously; two Horticultural Societies are already founded. Apples are grown in perfection; peaches very uncertain; only the hardiest cherries can be produced; small fruits do well; pears and other fruits not fairly or fully tested yet.

Kentucky. — L. Young, Esq., chairman of the fruit committee of this State, communicated to the Convention that he had succeeded in preventing the ravages of the *curculio* on smooth-skinned fruits, and of the scaly aphis on the orange and oleander trees, by the use of lime. (For an account of this, see another part of this paper.)

District of Columbia. — This report has reference mainly to the frequent destruction of the fruit crop in that region, by late spring frosts. These are avoided by planting in elevated situations. A number of observations and facts are given, showing the difference of temperature in frosty weather between the high and low situations — a difference amounting in some cases in the same grounds, to 14½ degrees. The committee also alludes to the benefits of pruning and manuring, and thinning the fruits by hand. The improvement is stated to be so great, that Mr. Geo. W. Riggs, one of the committee, who pursues this system, obtained in 1848 two dollars per basket for his peaches, when the market was glutted and common productions selling at twenty-five to forty cents.

Virginia.—The report from this State, owing to the backward condition of fruit culture there, is not of much importance; but it is stated that more attention is now being paid to these matters, and by and by we shall learn something of Virginia fruits and fruit growing capacities.

Georgia.—The report from this State speaks very favorably for the successful culture of fruit there. Apples, pears, peaches, apricots, nectarines, grapes, and figs, succeed well; cherries, only the *Dukes* and *Morellos*. The *Seckel* pear is said to attain twice or three times its usual size here; the *White Doyenne* is healthy and fine; *Beurre Diel* and a large number of the best pears fully sustain, and in some cases exceed, their northern character.

These reports, imperfect as they are, can not fail to give an enlarged idea of the varied and almost boundless capacities of our country for the culture of fruits. From "Maine to Georgia" they show that a new spirit of improvement is taking thorough hold of the public mind, and the country's vast resources are but beginning to unfold themselves. Every portion of the country is so connected with the other, by so many and such rapid modes of communication, that the variations of soil, climate, and production, are a great source of interest and advantage to all, instead of being a source of regret or disadvantage to any.

THE SEASON, CROPS, &c.

The season here is about a week or perhaps ten days later than usual, as indicated by the maturity of fruits and opening of flowers. The first strawberries were exhibited on the 15th of June, by M. G. Warner, Esq. — *Large Early Scarlet.* Green peas of the *Early Emperor* variety, and the first of the season, were exhibited by Jno. Donnelan of Greece. *Bauman's May* cherries are ripe, and the June roses are just beginning to open now, June 17.

The fruit crop, excepting peaches, looks well. Apples, pears, plums, cherries, and all the small fruits will be abundant. Our peach crop was injured in precisely the same way as last year, by a long period, say two or three weeks, of rainy, cold, windy weather, at the time of blossoming and setting of the fruit. On the 17th of May the wind blew a perfect hurricane, and that alone injured the blossoms much; but the cold wet weather after that had a more fatal effect; the growth of the peach was wholly suspended, the leaves became swollen and curled in appearance, and dropped off, until old trees and badly pruned ones have all but died; young trees that have been kept tolerably well pruned or shortened in, have suffered less, and in most cases are bearing a middling crop. It seems as though our climate was undergoing a change, by which peach culture will be much more difficult than formerly, and a more thorough system of management absolutely necessary.

The *curculio* is engaged in its work of destruction with as much rapacity as ever, and some people say more. Apples and pears, it is said, are considerably injured by its attacks. The new remedies have been tried, viz: *whitewashing* and *dusting with powdered lime.* We hardly dare hope to hear of their success. Our impression is, that unless the whitewash is laid over the entire surface of the young fruit as nicely as it can be done with a paint brush, (and this is quite impracticable,) that it will fail to repel this insect; but the way is, in this most desperate case, to try anything that has even a *possibility* of success.

MUNSON SWEET AND NORTHERN SWEETING APPLES.

P. Barry: — Since the publication, in the Farmer, of thy notice of the Northern Sweet, and remarks of the probable identity of that variety with the Munson Sweet, I have taken measures for testing the matter by an exchange of scions with friend Storrs of Marathon, so that by comparison of both kinds growing and bearing *together,* both in his grounds and mine, we may hope in a short time to ascertain whether they are the same kind or not. In the mean time, I would say that J. Storrs, as well as myself, is already pretty well satisfied that they *are distinct.* He thinks they are "unlike — first, *in the form of the fruit* — the Munson Sweet being more flattened and less ribbed; second, *in the color of the flesh* — the Munson Sweet being more yellowish; third, *in the season of maturity* — that of the Munson Sweet being from October till February, and sometimes till April." He also states that "the tree is a *strong* grower, the young wood making thick, heavy, rather dark colored, and short-jointed shoots;" whereas, my Northern Sweet, though a *good,* is not a *strong* grower, the young wood making shoots rather slender than "thick and heavy," and rather light than "dark colored," and by no means "short-jointed," but rather the reverse. Judging from the scions of the Munson Sweet received from friend Storrs, I have no hesitation in believing that they *are* distinct. In fact, there is no more similarity between them and scions of the Northern Sweet as grown here, than between the Baldwin and the Porter.

Should it prove, as I have no doubt it will, that these two sorts are distinct, and that the Munson Sweet is really as good a fruit as the other, then we shall have in the two all that can be desired in the class of sweet apples, from the latter part of the ninth month till into winter. J. Batty. — *Union Nurseries, Keeseville, N. Y., 5th mo.,* 1850.

We are much obliged to our friend for his suggestions. As we have both kinds now growing, we shall soon be able to determine, as far as growth is concerned.—Ed.

WHITEWASHING A REMEDY FOR THE CURCULIO.

A GENTLEMAN near Louisville, Ky., L. YOUNG, Esq., a prominent horticulturist of that vicinity, has communicated to the Massachusetts Horticultural Society details of experiments made in 1848 and 1849, with lime on smooth-skinned fruits, to prevent the ravages of the curculio. The experiments appear to have been carefully made, and the result induces Mr. YOUNG to believe that lime, if applied to apricots, nectarines, and plums, before they are stung with the curculio, and continued during the first four weeks of their growth, will prove a more efficacious remedy than anything yet discovered. He first dusted the powdered or slaked lime over the trees, and afterwards, for the purpose of coating the fruits more effectually, syringed them with water before applying the lime, which amounts to the same as whitewashing.

Experiments of the same nature have also been communicated to the Massachusetts Horticultural Society by M. H. SIMSON of Saxonville. He says, "I showered the trees before the bud broke, with whitewash, with my hand engine, covering the branches *entirely*." If this does not answer the purpose, he says, "I shall syringe the fruit when little larger than a common white bean. My experiments have convinced me that this latter method is a *sure preventive*."

This *whitewashing* strikes us rather favorably. We have given it a fair trial, and trust we may be able to report favorably. A lady in our neighborhood has this season dusted her trees with *ashes* every morning; and she thinks she has thus far saved her fruit, in a great measure.

THE AMERICAN POMOLOGICAL CONGRESS.

THE next session of this body is to be held in Cincinnati at the same time of the great Fair of the "Ohio State Board of Agriculture." The season is too early for the north and east to make any very important contributions; but we have no doubt, from the spirit now manifested in regard to fruits and fruit trees through the West, that they will make a grand display, and bring together at the same time a vast fund of information respecting the peculiarities of their soil, climate, and productions.

It may be well enough in this connection, to remind fruit committees, fruit growers, and pomologists, that at the last session of the Congress in New York, the following resolution was adopted:

> *Resolved*, That all Pomologists throughout the United States and the Canadas. be invited to forward to Mr. A. J. DOWNING of Newburgh, N. Y., at any or various times during the time elapsing from the adjournment of this Congress and two weeks previous to the assembling at Cincinnati, communications respecting varieties of fruits and fruit trees, shrubs, or vines, and of diseases appertaining thereto: such communications to be collated by Mr. DOWNING, and presented to the next Congress at its sitting in 1850. All such communications to be pre-paid.

THE STANWICK NECTARINE.—The first twenty-four trees of this famous fruit, originated in the Duke of Northumberland's garden, England, were sold in lots of one tree each, at auction, on the 15th of May last, for the benefit of the Gardeners' Benevolent Institution. Some sold as high as ten guineas, and none less than two. The 24 trees brought over $800. It is said to be as much superior to all other nectarines, as the Green Gage plum is to all other plums.

PEONIES.

WE have already (June 19,) taken note of twenty varieties of this brilliant class of plants, and the Chinese species are but begining to open. We shall take an early opportunity to notice some splendid new sorts. It is nearly a month since the earliest bloomed, and to all appearances the late ones will continue to bloom for three or four weeks to come. A collection of these superb, showy flowers, blooming through a period of two months, is a matter worthy of the attention of all who are seeking really good, and easily managed, flowering plants.

Mr. DONNELLAN, of Hanford's Landing, near this city, has raised within a few years, some very fine seedlings, hybrids of Whitlejii, and some of them surpassing in size, beauty, and fragrance, that famous old sort. Mr. DONNELLAN has named two *Major Williams and Olive Williams.* The first we have never seen, being away from home last season when it bloomed, but the last one, *Olive*, we saw yesterday, and it is really a superb flower. It is larger, fuller in the centre, quite as fragrant as the Whitlejii, and is distinctly marked with stains of deep red on several of the centre petals. We visited Mr. DONNELLAN's garden a day or two ago, and find that he has a large number of seedlings coming forward, from which he will no doubt obtain some valuable and novel varieties. We found his grounds greatly improved, his crops of vegetables abundant and fine, and everything prosperous. No man is more worthy of success.

PORTRAITS OF "EMINENT HORTICULTURISTS."

DR. KENNICOTT, of Illinois, who is now well known to the Horticultural world as one of the most prominent and useful nurserymen and pomologists of the West, has been furnishing, for the "Prairie Farmer," a series of "pen and ink sketches" of the men who composed the Syracuse Pomological Convention. The subjects noticed have no reason to complain, unless it be that the Doctor, like some other *artists*, has colored a *little too high*—though we do not profess to be a critic in such matters.—The Doctor is the first public writer who has condescended to notice in this way, such *unassuming* individuals. "Eminent men" of all other professions, from the Parson to the pick-pocket, are duly noticed by the press when they happen to assemble in Convention; but up to this time Horticulturists have passed unnoticed. We begin to think they are really growing into importance, and take note of the fact with no small degree of satisfaction.

NORTHERN SPY APPLES.

MR. BARRY—*Dear Sir:* A barrel of Northern Spy apples were brought into market this week, which opened very fine. Some I have eaten of them were as good as I ever saw—perfectly fresh and juicy. These sent you were the last of the barrel, and I fear they will taste of the barrel.

Accept, from your friend, J. H. WATTS.

Rochester, June 7, 1850.

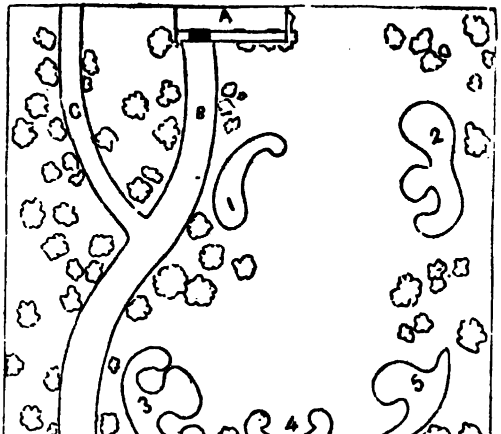
The apples sent us with the above note, were in good condition, sound and juicy, and were really a luxury at this season of the year. Many of our citizens had an opportunity of testing their good qualities.—ED.

Ladies' Department.

FLOWER GARDENS.

Messrs. Editors :—Although late in the season, I wish to ask a little advice of you about fixing my flower garden—the size of it is about fifteen by twenty feet. I read with much pleasure your "Ladies Department," in the May number, and your directions to make a garden; but then it didn't seem to suit my little patch, where everything has to occupy as small a space as it possibly can. Now you know that there are hundreds and thousands in our cities and large towns, that have to content themselves with just so small a space—and some even yet smaller—where the *effect* is mostly produced by the appearance of the flowers themselves, rather than by any peculiar formation of the beds and walks, and the romantic arrangement of the shrubbery. My yard contains a large oval bed in the center, occupied mostly by perennials, around which is a walk, and then a border, such as is naturally left by cutting out an oval. The border contains all the shrubbery and a few annuals, which occupy the vacant spaces. This is as good an arrangement as I know how to make; but, Messrs. Editors, if you will be so kind as to offer a few hints for further improvements, they will be gratefully received and appreciated by Mignonette.—*Rochester, June,* 1850.

Building lots in our smaller cities are generally thirty to thirty-three feet front, seldom we believe smaller, and often much larger. Persons designing to build, often purchase a lot and a half, or two lots, thus giving them a front of from forty-five to sixty feet. In villages, and in the suburbs of cities, lots are seldom less than a quarter of an acre. When building on a small lot of forty or sixty feet width, the house should be set back the same distance from the front line as the width of the lot, if the depth of the lot will admit of it: thus, if the lot is thirty feet wide, you have a front yard or lawn thirty feet square; or, if sixty feet wide, a lawn of sixty feet. The latter size is large enough to give a very pretty lawn and an abundance of room for flower-beds and shrubbery; and even a square of thirty or forty feet may be made pleasing and beautiful. It is the province of correct taste to overcome natural difficulties, and to turn to the best account the means within our reach. Perhaps as much real taste can be displayed in laying out a thirty foot plot, as in decorating broad acres.



To aid us in making the subject plain, we have procured the annexed engraving—a rather imperfect outline—of a garden in this city, which, while we do not present it as a model, we consider laid out with pretty good taste. The lot is sixty feet wide, and the house, a neat little cottage, is sixty feet from the street, making the lawn, of course, sixty feet square. A, is the house; B, the main walk from the garden gate to front door; C, road leading from main walk to back door. The whole is covered with grass, except the walks, which are gravelled. Numerous flowering shrubs are scattered in little groups over the lawn, (the grouping of which the engraver has not done justice to,) and a few shade trees are planted near the outer edges. Fig. 1 is a bed of ever-blooming roses, nicely cut out in the grass; fig. 2, a bed of petunias; fig. 3, verbenas; fig. 4, scarlet geraniums; fig. 5, phloxes. Perhaps with a piece of ground of even less than thirty feet, something of the same form might be retained, with smaller beds or less in number. The form of these beds might be varied to suit taste and circumstances, always remembering to use curved lines instead of the old-fashioned sharp angles.

It will be noticed that the garden gate is near the corner of the lot. This makes an apparent necessity for a winding walk. If the front gate was near the center of the lot, and opposite the front door, a winding walk would not appear natural and graceful, —it would look too much like over-strained effort—a forced attempt at the graceful.

In so small a space as "Mignonette" has at command, truly little can be done for the picturesque; but still we think a nicely curved walk, with such a bed as our correspondent describes, cut out of a well kept carpet of grass, with a few shrubs planted in little groups, would be much cleaner in appearance and prettier every way, from the first shooting of the blades of grass in spring, until covered by the snows of winter.

TO DESTROY INSECTS ON HOUSE PLANTS, &c.

Eds. Gen. Farmer: I write, not so much to claim the "Floral Rake," (to which, however, I have a *fair* title, by the terms of your offer,) as to obtain information in regard to the best mode of destroying insects on parlor plants. I have reference more particularly to the minute red spider. My choicest plants have been totally destroyed by this pest, which feeds upon the foliage and juices, and resists all the destructive agents I have been able to employ. They thrive upon soap-suds, grow fat upon tobacco, and will not stay killed by the summary process of squeezing to death. What shall I do next?

As not only the flower-stand and the garden, but the poultry-yard, likewise, claims a share of my attention, I should like to know how to classify some new pets. I procured, from the neighborhood of Boston, the eggs of one of the large breeds of fowls, the Cochin China, as I supposed. The eggs were not "mahogany," but salmon color. The chickens, now two weeks old, are very light colored, thicker in the neck than ordinary, larger, though not conspicuously so, than others of the same age, and are feathered on the outside of the legs. Are they Shanghaes? I shall be delighted if you answer in the affirmative. M. A. F.—*Northampton, N. Y., June,* 1850.

The red spider is certainly a "pest," but when properly dealt with, can be made to surrender very promptly. While tobacco-water easily destroys the *green louse,* or *aphis,* the "spider," if he does not "*grow fat*" upon it, like some other creatures, shows no dislike to "*the weed.*" The best way to destroy them is to burn a little sulphur under the plant. Your enemy will soon smell brimstone and come down.

The eggs of the Cochin China fowl, although called mahogany, are more of a salmon color. The eggs of the Shanghae are of a lighter color, though they may be very properly called a salmon. Your chickens are probably Shanghaes. The feathered leg is the most marked distinction between the Shanghae and Cochin China.

FAIR AND FLOWERS IN SENECA COUNTY.

THE *Agricultural* Fair of Seneca County is to held at Ovid, on the 26th and 27th of September next. H. D. DIDAMA, the Secretary, has furnished us a list of premiums. But what will interest the ladies more particularly, is the *special* premiums offered on flowers. There are some true lovers of the beautiful, in Seneca County. They not only possess the taste, but the zeal and activity that can not fail to accomplish good. It will be seen by the extract we give from the list of "*extra premiums,*" that a "*floral fund*" is to be raised by contribution, and very liberal prizes awarded. Had not our Seneca County friends been quite so exclusive, we should like to have taken a few shares of that floral stock. However, we shall endeavor to see for ourselves the fair and flowers of Seneca County, in September.

1st. For the greatest variety, and choicest specimens of flowers, grown and cultivated from seed sown or planted in Seneca County, by any young unmarried lady, not over twenty-five, nor under sixteen years of age, Loudon's Flower garden of Ornamental Annuals—value $12.

2d. For the second greatest variety, and choicest specimens of flowers, under the same regulations, Lindley's Vegetable Kingdom, or the structure and uses of Plants, with illustrations—value $8.

3d. For the third greatest variety and choicest specimens of flowers, under the same regulations, Loudon's Gardening for Ladies, illustrated—value $2; and Popular Flowers, their cultivation and treatment, in all seasons, plates—$2.

The funds for procuring the prizes shall be contributed by gentlemen resident in Seneca County, in sums not less than one dollar each, and expressly for the above purpose; and the contributors to this "floral fund," shall be entitled to *premiums* under the following terms and regulations:

1st. For the best essay on "The influences of rural life, and pursuits upon the human mind."

The successful competitor shall be allowed to present the premium awarded for the greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

2d. For the best essay on "The relation of vegetation to seasons, or the periods of growth and the periods of rest."

The successful competitor shall be allowed to present the premium awarded for the second greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

3d. For the best essay "On the colors and odors of flowers."

The successful competitor shall be allowed to present the premium awarded for the third greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

The committee appointed by the Society as Judges on fruits, flowers, and vegetables, shall decide upon the merits of the flowers presented under this arrangement, and shall award the premiums in their discretion.

A committee shall be appointed by the officers of the Society to examine and decide upon the merits of the several essays, and adjudge the premiums in their discretion.

All essays shall be transmitted to the President of the Society, on or before the first day of September next, signed with a fictitious name; and the writer shall enclose his proper name in an envelope, sealed and superscribed with the fictitious name, which envelope shall not be opened, unless the party presenting it proves to be the successful competitor.

All essays not entitled to a premium shall be returned to the writers as they may direct.

All persons disposed to contribute to this fund, will please to transmit their several contributions to JOHN D. COE, Esq., Treasurer, at Romulusville.

Youths' Department.

THE ANALOGY BETWEEN ANIMAL AND VEGETABLE LIFE.—No. 1.

THE elementary materials of animal and vegetable matter are precisely identical; the organs essential to the growth and reproduction of each are similar, and they are nourished or destroyed by the same agencies. That internal, invisible power, which we call the "principle of life," forms a clear distinction and boundary between organized, or living bodies, and all inorganic, or mineral substances, in the uni-universe. But between animals and plants, no such great distinguishing trait exists. The *cabbage* is no less alive than the *cow* that feeds upon it. The superiority of the latter over the former consists chiefly in this—the existence of mind, intellect, brain, and nerves; of which the plant is deficient. In their more perfect forms, the distinction between animal and vegetable life is obvious enough—for instance, no one would be likely to confound a *horse chestnut* with a *chestnut horse*; but as we approach the extremities of the animal and vegetable kingdoms, the distinction is not so easy. There are many natural productions, such as *sponges* and some *fungi*, which were originally considered minerals, afterwards vegetables, and are now universally regarded as belonging to the animal kingdom. Plants are aptly termed the connecting link between the mineral and the animal. It is not unlikely that they existed for ages on this planet before animals appeared. From the crumbling *debris* of the granite rock, moistened by the rain, springs the moss which nourishes, or supplies with organized food, the moose and the deer. That subtle essence which we term *vitality*, or the *living principle*, is a curious subject for study and research. To endeavor to analyse or investigate it, seems penetrating into the very *arcana* of nature. In what part of the plant it chiefly exists, or to what quarter it retires during the winter, we know not; and we are just as ignorant in regard to animal life. In both it operates towards every point—it exists and resides in the whole; and the proof of its existence is drawn from its resisting those putrefactive or chemical agencies which instantly begin to operate when it becomes extinct. While life exists, the animal or vegetable thrives, and increases in bulk; the tree puts forth annually a new progeny of buds, and becomes clothed in a beautiful foliage of lungs (for every leaf is a distinct lung,) for respiration, thus absorbing from the air through its leaves, and from the earth by its roots, the food necessary for its growth and perfection; while from its decay, as from the death of animals, there is formed in rich abundance the means of new births, new buds, and new harvests.

Such is the simple, but beautiful circle of nature. That which lives, flourishes, decays, and dies, is not lost—the great principle of life only changes its form, and the destruction of one generation of plants and animals, is but the necessary preparation to the support and existence of the next. F.

To the man of *thought*, not only the elaborate works of some great author, but the simplest sentence, furnishes abundance of material. The works of nature, the starry heavens, the mighty cataract, the whirlwind and the storm, and even the woodland flower, calls forth the most elevated sentiments.

Editor's Table.

Destructive Insects.—We should judge from our correspondence and the many applications we have for the best means of destroying *cut-worms*, that these insects were very numerous and destrctive in some sections, the present season.

Cut-worm is the name applied to any caterpillar dwelling in the earth, which eats or cuts away young plants of cabbage, corn, beans, &c. They are naked, of a greasy appearance, and are only seen above ground before sunrise or in cloudy weather. They abound usually in lands which have remained for a long time in grass or clover. The *wire-worm* is probably one of the most destructive and the most difficult to get rid of, of the class. It derives its name from its slender form and hardiness. It is the grub of a small beetle, and lives in the larva state nearly five years, supporting itself upon the roots of wheat, rye, oats, and grass. The most successful mode of destroying it, has been by offering more tempting food, as laying clover covered by a stone near the plants they would be likely to destroy, examining and destroying the insects that will be collected to feed on the clover. In England they stick slices of potato upon skewers, and bury them near the seeds sown; the worms collect upon them, and are destroyed in great numbers.

White Grub is the name generally given to the grub of the Cockchafer, or May-bug. The eggs of this devastator are white. They are deposited in the ground, where they soon change into a soft, whitish grub, with a red head, and about an inch and a half long. In this state it continues four years, during which time it committs most destructive ravages on the roots of grass and plants. Frequent plowing and hoeing annoys them. Salt and lime we have found exceedingly beneficial, though we never tried it on a large scale: and if much troubled with the *wire-worm* or the *grub*, we should certainly sow arsenic on the land, as recommended by John Park of Gates. We should like to have some of our farmers try it, and give us and our readers the benefit of their experience.

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Interesting Experiment.—The May number of the London Farmer's Magazine gives an account of an experiment made near Glasgow, in the application of 84 pounds of saltpetre to an acre of wheat. One half of the salt was sown the 17th of April and the other the 6th of May. Unmanured wheat weighed 2552 pounds; straw, 3148 pounds. Manured wheat, 3068 pounds; straw, 4500 pounds. Difference in weight of wheat, 516 pounds; in straw, 1352 pounds.

The above figures demonstrate the interesting fact, that each pound of the salt named gave a gain of six pounds of wheat and sixteen of straw — twenty-two in all.

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Norton's Elements of Scientific Agrioulture.—This is the work to which was awarded the premium of $100 by the N. Y. State Ag. Society. It is a small book of some 200 pages, but a great one, in its best sense, containing the elements of scientific agriculture. Its language is plain, its illustrations simple. It is a work for the farmer, and the farmer should read it, and teach it to his children. By John P. Norton, Professor of Scientific Agriculture in Yale College. Published at Albany, N. Y., by Erastus H. Pease & Co. Price 50 cents.

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The Poultry Yard.—This is the title of at *least* one of the best books ever published in this country on the subject of Poultry. Its author is Dr. J. C. Bennett, of Plymouth, mass. Dr. B. has done more than any other man to create the interest now felt on the subject of Poultry, and he has written a good book. Published at Boston by Phillips, Sampson, & Co. Price 75 cents.

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Mowing Machine.—Those who have addressed us on the subject of Mowing Machines, are informed that G. W. Allen & Co., manufacture "Ketchum's Patent Mowing Machine," at Buffalo, N. Y. This machine is a good one. Price $100.

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The citizens of Lockport in this state, are about to establish a Horticultural Society. This is right. Our friends in Lockport could not have sustained much longer their reputation for taste and inteligence without such a society.

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Several advertisements, and an engraving of Seymour & Morgan's Reaper, to accompany their advertisement, we are compelled to omit for want of room.

We are receiving from Fowlers & Wells, N. Y., a number of useful publications, which we may give further notice hereafter.

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The Southern Planter is the name of a new agricultural paper just commenced at Glasgow, Ky. It contains some very good matter, but is so poorly printed as to be scarcely readable.

Daguerreotypes that are Daguerreotypes.

BROWN & HOWARD'S Emporium Daguerrean Gallery. No 9. second floor Gould Buildings Having opened a splendid Gallery in the Gould Block. would respectfully invite the public and all those wishing good likenesses. to give us a call. and we will assure them they will not waste time and money. as is often the case. Our Gallery is furnished in a style of unusual splendor. equal to any in the State. The walls are adorned with some of the finest works of Art, both of pencil and engraver.

Strangers visiting the city. and having a few leisure hours. will be amply rewarded by a visit to our Gallery, which will be kept open during all business hours. Please call and examine for yourselves.

WM. BROWN.
JOHN HOWARD.

The undersigned takes this method of informing the citizens of Rochester and vicinity. that by the solicitations of many citizens, he has been induced to return to the city for the purpose of making it a place of permanent location. Having been absent from the city one year. and in constant practice. experimenting in the above named Art, has now returned better qualified than ever, not only to sustain. but excel my former reputation as an Artist, being well known in this city and vicinity, as formerly principal operator in Mercer & Co.'s Gallery, corner of Main and St. Paul streets, would now respectfully invite my old friends, and the public generally, to call at No. 9, Gould Buildings, where you can see likenesses that will speak for themselves.

[7-tf] W. BROWN.

Savings Bank.

THE MONROE COUNTY SAVINGS INSTITUTION will be open daily, at 10 o'clock A. M., to 3 P. M., at the Rochester Bank building, No. 22 Exchange street.

Trustees.

Everard Peck,	Daniel E. Lewis,
David R. Barton,	Thomas Hanvey,
Charles W. Dundas	Moses Chapin,
Levi A Ward,	Ebenezer Ely,
Lewis Selye,	Amon Bronson.
William N. Sage,	George W. Parsons,
William W. Ely,	George Ellwanger,
Alvah Strong,	Joel P. Milliner.
Martin Briggs,	Ephraim Moore,
Theodore B. Hamilton,	Nehemiah Osborn,

Freeman Clarke.

Freeman Clarke, Treas. EVERARD PECK. Pres't.
Rochester, July, 1850. [7-tf]

Threshers Take Notice.

THE subscribers manufacture an eight-horse power that stands on a low wagon when in operation. thereby saving the trouble of loading and unloading either Horse Power or Separator. The Horse Power is double geered, yet has less than one-half as many boxes and mashes of gearing as any other in use. They can be set ready for use by one man, in half the time required for other Machines. The Cleaner possesses facilities for separating the grain from the straw. superior to any other, never winds and is capable of threshing from three to six hundred bushels of wheat per day. They have been introduced into most of the grain-growing States with unexampled success Those wishing Machines. can have the privilige of thoroughly testing them before purchasing. The price of both Machines, with a carriage for each, is only $275. The above Machines are kept constantly on hand and for sale at Woodbury's steam works, on Canal street, Rochester, N. Y.

Smaller sizes furnished, if desired. Also. for sale the right of territory on both the above Machines. J. & D. WOODBURY.

TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds. Stained and enamelled Glass;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass, French White Looking Glass Plates. &c , 17 Buffalo street, Rochester, N. Y.

Land for Sale.

200 ACRES of excellent Land for sale in Hillsdale Co. Michigan. 10 miles from the county seat. Eighty acres has been in cultivation several years. Shingled log house and good springs. Payments. $1000 or $1200 in hand, and balance with interest, to suit the purchaser.

Apply to the Editor, or address him, post paid.

McCORMICK'S PATENT VIRGINIA REAPER.

THE undersigned respectfully informs the farmers of the wheat-growing portions of New York, New Jersey. Delaware, Pennsylvania and Maryland. that he has made arrangements for supplying them with his Reaper for the harvest of 1850. from his manufactory at Chicago, Ill.. and refers them to the manufacturers, (C. H. McCórmick & Co.) or to Hon. Thos. J. Paterson. of Rochester. N. Y., which is to be the general depot for the sale and delivery in Western New York. Mr. Paterson, who has recently traveled through several of the Western States and has become well acquainted with the character of the Reaper there, as their general agent to attend to the sale and delivery of the Machines. has appointed agents in the different counties, to effect sales of the same.

The undersigned deems it unnecessary through the press, to say much in offering his Reaper to the public.

Perhaps the *best evidence* of the value of the undersigned's Reaper. is the unparalleled demand for it over all other Machines, where best known—near 1.500 of which were manufactured and sold at Chicago the last year. about 100 having been sold in the West for the harvest of 1846, 450 for that of 1847. and 750 for that of 1848 ; and 1,600 to 2 000 are being manufactured at that place for the next harvest. And it may be added, that at the New York State Agricultural Fair, held at Auburn, for the year 1847. the first premium of the Society was awarded to this Reaper ; that the Diploma of the Society with a strong recommendation to the confidence and patronage of the Farming community, was awarded to it at the last State Fair at Syracuse—a *Chicago* Reaper being present, where no premium was awarded to the Auburn Machine ; and that the Gold Medal of the "American Institute" was awarded to the same machine in October last.

It has not been manufactured heretofore at Brockport, New York, with the *the recent and very great improvements* that have been made in it at Chicago.

One of the Machines, as lately improved, cut. in the last harvest, 800 *acres, without a shilling's repair, and without sharpening or changing the sickle, and, without clogging in either green or wet grass, grain or weeds.* Two of the Chicago Reapers were sent to the Genesee country for the last harvest, one of which was sold to Mr. Martin, of Victor, Ontario Co., who was so well pleased with it that he paid for it immediately after harvest, without waiting until December, the time upon which it was sold. The other was sold to Mr. Case, of Fowlerville, Livingston Co.—where several other Machines, manfactured at that place, without the latest improvements, were sold—and found so much superior to all other Machines, that this gave general satisfaction, to the purchasers of which he would refer.

The Reaper will be delivered in Buffalo or Rochester—$30 payable on delivery. and $80 on the 1st of December thereafter, with interest ; or for $105, cash, which is $10 less than the price at Chicago.

It will be warranted to cut two acres of wheat or other small grain. in an hour. on tolerably smooth ground. with a reasonable deduction for decreased speed when the ground is uneven or hilly; and to save three-fourths of the grain lost by cradling ; and it will be warranted to be well made. of good material and durable. To be returned and the advance money refunded, if, on trial by the purchaser, it fails to perform as warranted.

The undersigned need only add that, encouraged as he is by past success. and prepared as he is at Chicago with the best material and the best machinery and workmanship that can be used in the manufacture of machinery, he is now determined at once to introduce his Reaper in the territory above mentioned as suited to its operation, and on terms that *cannot fail* to give satisfaction. On those tems no one wanting a Reaper need wait "to see one operate," as no trial made by others, and *only seen*, could be so satisfactory as the conditional one to be made by himself, as proposed. He is not asked to take any responsibility in the matter, as, by a calculation which any body can make, if the Reaper performs as warranted, it does more than pay for itself in every harvest. The undersigned has succeeded with his Reaper in superceding. to a great extent, all other means of harvesting in the West ; and he hopes to merit the same success in other wheat-growing portions of the country.

In the last number of this paper, I gave notice that I had commenced a suit against Seymour & Morgan, of Brockport, for a palpable infringement of my patent, in their Machine (inferior as it is in many respects to my Reaper) got up for the purpose of evading my patent.and that all who purchase it would become equally liable. Also, that purchasers of the Virginia Reaper. made at Brockport, to be used in any other than Monroe and Orleans counties. would make themselves liable—that the manufacturers did not claim the right to dispose of them to be used any where else.

The foregoing, with the following testimonials, taken in connection with the fact that you may cut a whole field. if desirable. without binding a single bundle, with my Reaper, and that it will cut green and wet grain, grass, or weeds, without choking, will, I trust, satisfy any one wanting a Machine, of the superiority of mine.

C. H. McCORMICK.

Rochester, June 22, 1850.

I found in the West that the farmers were of the opinion that the Reaper, fully employed, would more than pay for itself in a single harvest—that the expense of cutting wheat with it, and putting it into the stack. was from 60 to 70 cts. per acre. which the saving of grain scattered by the ordinary modes of cutting, nearly, if not quite, paid. Any one wanting a Reaper, who shall not be called upon by any of the agents authorized to sell them, can have one forwarded to any wheat County in this State, or to Erie County, Pennsylvania, if ordered of me. at this place. in season, by letter or otherwise, accompanied with a satisfactory reference.

THOS. J. PATERSON.

Rochester, June 22 1850.

Letter of A. P. Dickey, Esq., brother-in-law to the Hon. George W. Paterson. Lieutenant Governor of New York, to whom reference may be had.

Messrs. McCormick, Ogden & Co., Chicago, Ill.—Gents:—I write to inform you in relation to the operation of your Reaper in Wisconsin, during the past harvest.

I sold 190 of McCormick's Improved Virginia Reapers in Wisconsin. during the spring and summer, on trial, or conditional warrantees, and now have the pleasure to inform you that they *all* have given entire satisfaction and fulfilled the guarantee given — The like circumstance is not known in any other farming implement sold in the Western States.

Every Reaper has done first rate business, and many farmers have told me on my calling on them, for the notes for the last payments during the harvest, that their Reapers had gone far beyond their expectations, especially when the hard storms had lodged the grain. and all other Machines for cutting were *useless*, —such as Esterly's Harvester. and Hussey's Reaper.

There were seven of Esterly's Harvesters in operation. for a few days. in Wisconsin at the commencement of harvest, and only one of them that succeeded in doing any business. while the other six were laid aside. and the farmers who had purchased them, hired your Improved Reaper to cut their grain, or were obliged to cut it with the cradle ; and Hussey's Reaper could only cut from 7 to 8 acres per day by carrying the swath, as it has no reel. Hussey's Reaper cannot work in lodged grain. or even leaning grain, unless the Reaper be moving in an opposite direction from that to which the grain leans, while your Improved Reaper. with the Reel attached, can cut from 15 to 20 acres per day in the most perfect manner. It has cut the lodged and leaning grain as well as that which stood up fair, and has saved from one to two bushels of wheat per acre, that they could not get with the ordinary way of cutting grain. This, together with the easy draught of the Machine, render it the best Machine for cutting grain ever introduced in this western country. The Reaper can be relied on in *every emergency*. The cutting is perfect, whether the grain be stout or light. I have seen them work under all of these circumstances during the past harvest, and know the Reapers to have done good business, and in no case has it disappointed a farmer during this harvest.

I sold six Reapers to farmers who had purchased, tried. and laid aside. Hussey's Reaper, two or three of these men informed me that they had saved the cost of your Reaper in repairs and horse flesh, which would have been required, had they again attempted to get through their harvest this season with Hussey's Reaper—to say nothing of the great advantage your Reaper was in taking off to the side, and not requiring so much help to accomplish their harvest.

I could have procured any amount of certificates setting forth the good qualities of your Reaper, and its durability ; but knowing its unprecedented success in Wisconsin, I thought such certificates would be entirely unnecessary to further the sales for next harvest. Yours, respectfully,

A. P. DICKEY.

Racine, August 15, 1849

Letter of Hon. W. B. Ogden, late Mayor of Chicago.

This may certify that I have been acquainted with McCormick's Patent Virginia Reaper for three or four years past, and since its introduction, to any considerable extent, into the prairie States of the West I was interested in the manufacture of 500 of them at the city of Chicago for the harvest of 1848, and of 1500 of them for the harvest of 1849. The demand greatly exceeded the supply in 1848, and was fully equal to it in 1849.

In August last I disposed of my entire interest in connection with said machines, and have now no interest or connection with them. whatever.

McCormick's Reaper, as improved and now manufactured, works perfectly, and performs all the patentee claims for it. It is peculiarly adapted to the wants of every grain-growing farmer whose lands are suited to its use, as any ordinary land free from too many stumps or large loose stones is, and it is a great labor and grain-saving Machine, as has been abundantly proved by the sale and successful use, under strong warrantees, of over 2500 of them in the North-Western States, within the last three years.

Several other harvesting Machines have been exhibited and tried, meanwhile, at the West, and often at the outset with good show of success. but as yet none have been found as free from serious practical difficulties, when thoroughly set to work in the field, as McCormick's ; and many have been abandoned. None other than McCormick's has been extensively introduced there.

Mr. McCormick has exhibited to me the letters of A. P. Dickey, Esq., of Wisconsin, Isaac Pool. of Illinois, and S. S. Phelps & Co., of Oquawka, Illinois, which letters, with others, he advises me he proposes to submit to the committee of the American Institute upon agricultural implements. and it gives me pleasure to say that the statements made in the letters of Messrs. Dickey, Pool, and Phelps & Co., are entirely reliable and entitled to full credit.

W. B. OGDEN, of Chicago, Ill.

New York, October 3, 1849.

TO FARMERS AND GARDENERS!

SEYMOUR'S GRAIN DRILL.

THIS DRILL, which was patented in September, 1849, is one of the latest improvements in Drilling Machines, and better adapted to the wants of the farmer than any other now before the public. It sows or plants all kinds of grain and seeds, from peas, beans, corn and cotton, to the smallest seeds—and combines the advantages of sowing either broad-cast or in drills. It is an excellent Broad Cast Sowing Machine, when the drill teeth and conducting tubes, (which are very conveniently detached,) are taken off.

Many farmers soak their wheat in brine or other liquid, (in which the good seed sinks while the foul floats off,) for the double purpose of seperating it from foul seed and rolling it in lime, plaster, or other fertilizing substances. This has the advantage over other drills, inasmuch as it performs well in sowing grain thus prepared, while *they* utterly fail in the attempt Wet wheat, oats or white caps, which so readily clog other machines, are not serious obstacles in this. Those who wish to soak their seed for any purpose whatever, or mix with it any fine fertilizers, such as lime, plaster, bone dust, &c., and also those who prefer threshing with a flail, to avoid the injury done to the seed by threshing with a machine, will find *this the Drill for them.*

When drilling with this Machine, the grain falls from the grain-box to the tubes, (a space of six inches,) in full view of the person attending it, so that in passing over the field, he may be constantly assured that the seed is deposited as he designs. The teeth are all raised from the ground at once, with one lever, and the seed all stopped at once; or one may be raised at a time, and the seed it discharges stopped. The convenience and simplicity with which this Machine is managed is unparalleled. No necessary expense or pains have been spared in making it as desirable, in all respects, as possible; and after *many* and the most *satisfactory experiments*—not in the winter on the floor of the machine shop merely, but *in seeding time, with the farmer*, under various circumstances, on rough and smooth, hilly and level, stony and clear land—the inventor (who was bred a practical farmer, and ought to know something of the farmer's wants) feels assured that the Machine is not only established on correct principles, but is got up in that simple and permanent style and good taste which cannot fail to suit all.

The first premium for a Grain Drill, capable of depositing fine manures with the grain, was awarded to this Machine at the Fair of the New York State Agricultural Society, held at Syracuse, in September, 1849. It also received the first premium at the Michigan State Fair, in 1849, and the first premium of the Ontario County Society.

Seymour's Garden Drill.

Is a small Machine of suitable size to be drawn by a man. It is got up on the principles of the Grain Drill, and will plant peas, beans, beets, and even carrots or any kind of garden seeds, mixed with plaster, &c. It is very convenient for large gardeners, as it will sow five rows at once, as readily as the Garden Drills in common use will sow one, and is much less liable to clog

Seymour's Broad Cast Sowing Machine supplied to order.

RECOMMENDATIONS.

A few certificates, from the most reliable sources, are subjoined:

Mr. Seymour—Sir: With the Grain Drill which I purchased from you this season, my son, a lad 16 years of age, has put in about 50 acres of wheat for me, and with some of it about a bushel and a half per acre of ashes and hen dung was mixed and all to my entire satisfaction. He has also drilled in about 100 acres for others, and I believe all are well pleased with the Machine; and I must say I prefer it to any I have seen. IRA R. PECK.

East Bloomfield, Sept. 17, 1849.

Mr P. Seymour—Dear Sir: You ask for my opinion with regard to the Wheat Drill I purchased of you this fall. Without specifying particulars, I would express my unqualified approbation of it over that of any other which I have seen in use. I am somewhat enthusiastic on the subject of drilling, believing it will soon be universally adopted by farmers. I would not willingly disparage the patents of other individuals.

In haste, with great respect, yours, &c.,

Gates, Sept. 10, 1849. CALVIN SPERRY.

This may certify that I have used Mr. Pierpont Seymour's Wheat Drill, and I consider it just the thing for putting in wheat. WM. OTIS.

Rochester, Sept. 7, 1849.

Lancaster County, Pa.

We, the undersigned, have seen and examined the Seed Drill of Pierpont Seymour, of New York State, in all its operations, and verily believe it to be the best we have ever seen, and will, we have no doubt, supersede all others now in use.

EDWARD LAMMEY,
JOHN HUDDERS,
ROBERT W. HUDDERS, Mach.,
WM H. MILLHOUSE,
FREDERICK ZARRACHE,
DAVIS ATKINS,
ELI ROBERTS,
JAMES H. NOBLE

Chester County.

We have also seen the operation of the above Machine, and fully concur in the utility of the Machine, and will, we have no doubt, supersede all other Machines now before the public.

HENRY A. JOHNSON,
ENOCH L. TAYLOR,
CLOUD CHALFANT,
REUBEN CHALFANT,
JOHN S. CARLILE,
EUCLIDES P. SHELTON,
JOHN M. KELTON.

Mr. Seymour—Sir: I have used the Grain Drill I purchased of you to drill spring wheat. A part of the field I sowed broad cast. The appearance of the crop is now in favor of the part put in with the Drill. I have also used the Drill to sow field beets, and am satisfied that the seed can be distributed as evenly and expeditiously as any grain, which is at the rate of about ten acres a day. The Machine, by taking off the drill teeth, makes a good Broad Cast Sowing Machine, which is valuable for sowing plaster, clover seed, and any grain a person wishes to sow broad cast. I believe the Drill and Broad Cast Sowing Machine will soon come into general use. HARLOW MUNSON.

East Bloomfield, June 1, 1849.

I have examined certain certificates in the the hands of Mr. Seymour, in favor of his Grain Drill, one of them from Ira R. Peck. I am personally acquainted with Mr. Peck. His statement can be fully relied on. The other certificates, I have no doubt, are from equally reliable sources. I have myself heard the Drill spoken of in high terms of commendation, by farmers who have used it; and have also seen it in operation, and believe it to be at least one of the very best in use. I was present at the State Fair in September last, where the first premium was awarded to Mr. Seymour for his Drill. I have the confidence that any statement which Mr. Seymour would be likely to make in regard to his Drill, would be strictly true. ISAAC W. MITCHELL

East Bloomfield, Feb. 5. 1850. Justice of the Peace.

☞ Many other certificates of the same import have been received from many persons in this and other States, which are not deemed necessary to specify.

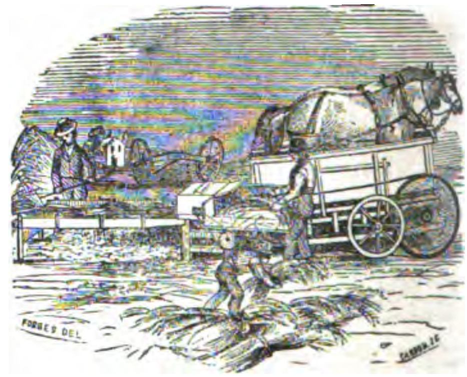
The subscriber tenders his thanks to his former friends and customers, and invites them, and all others desiring anything of the kind, to examine the above described Machines.

The right of either of the above Machines can be had on such terms as to make it an object for manufacturers or dealers to purchase.

Price of Drill with 9 teeth,	$80
" " " 7 "	$70
" Garden Drill,	$50
" Broad Cast Sowing Machine,	$45

PIERPONT SEYMOUR.

East Bloomfield, Ontario County, N. Y., 1850. [7-1t]



Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers would respectfully say to the farmers and others of Western New York, that they have been appointed the General Agents, for the sale of the above Machines, by the manufacturers, Messrs. Wheeler, Mellick & Co., of Albany, and that they are prepared to fill all orders at Albany prices—adding only transportation.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones [For further particulars see advertisements of Wheeler, Mellick & Co., in previous numbers of the Genesee Farmer.]

All Machines warranted to work well, or they may be returned within three months and the money refunded.

RAPALJE & BRIGGS.

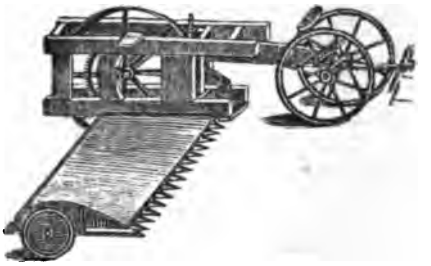
July, 1850. 65 Buffalo st., Rochester

Harvest Tools.

A great variety of Scythes and Snaths, Grain Cradles, Hand and Horse Rakes, Hay Forks, &c.

A. B. ALDEN & CO.,

[7-1t] 189 and 191 Water st., New York



HUSSEY'S REAPING MACHINE.

WE would respectfully call the attention of farmers to the fact that we have the exclusive agency and the exclusive sale of the above named Reaper, in all that part of the State of New York west of Ontario county, and we are also general agents for the United States and Canada. We sell the Reapers at the Manufacturer's prices, adding only cost of transportation. They can be examined at our Store. All who design purchasing are earnestly requested to hand in their orders at once, as this will enable us to have on hand in season all that may be required, and prevent any being disappointed. as might be the case if orders were delayed till the harvest had begun. That they are the best Reapers made, and that it would be greatly to the advantage of farmers to have them. there is no doubt.

Annexed are a few of the many certificates which might be given:

Macedon, Aug. 29, 1849.

Messrs. Rapalje & Briggs—Gents:—The Reaping Machine I bought of you. made by Messrs. Eldred & Hussey, at Auburn. has been thoroughly tested by me the present harvest, and I am happy to say has exceeded my most sanguine expectations I have cut with it 125 acres of wheat, besides my own crop, making some 200 acres of oats and wheat; and I can confidently recommend it to my brother farmers as just the machine they want. I have cut 12 acres of oats in half a day, and 20 acres of stout wheat in one day, with three horses abreast, and most of it was bad cutting I think I can cut 25 acres of good wheat in a day. and do it better than can be done in any other way My machine is now in perfect order, and I consider it full as good as when I got it of you.

Yours most respectfully, Thos. Rushmore.

Wheatland, August 20, 1849.

Messrs. Eldred & Hussey—Gents:—I have now used one of your Reaping Machines for two years, and do most cheerfully say that it has given the best satisfaction. I have cut my whole harvest and a large one too. with my ordinary farm hands. I have cut 20 acres of stout wheat a day with ease, and I would most cheerfully recommend it to my brother farmers as the best and most economical machine that is used on a farm. In fact I think so much of it, that five hundred dollars would not induce me to part with it if I could not get another. I have also two brothers, each of whom have one of your machines. which they like very much. and could not be induced to be without. I think your agents, Messrs. Rapalje & Briggs, will sell a large number of them in our county next season, as many of my acquaintances have told me they intend to purchase one of your Reapers another season. Anan Harmon.

Bergen, Sept. 1st, 1849.

This is to certify that I have this season used one of Hussey's Reaping Machines. which I purchased of Messrs. Rapalje & Briggs, of Rochester, and that it gives perfect satisfaction. I have cut my wheat, which was very badly lodged. much faster. better, and cheaper than it could be done any other way. I have had one of McCormick's for the last three years, and it now stands in the road as a useless article, as I consider it. having tried to use it for three years without any success.

I consider Hussey's Machine just the thing for our farmers. and I could not now, after proving its merits. be induced to be without one.

Noah Wilbur.

Greece, Sept. 7th. 1849.

Messrs. Rapalje & Briggs—Gent'n:—The Reaping Machine bought of you by Mr. Champion, for me. exceeds any thing of the kind I ever saw. You will remember that when I got it I said to you I was sure it would not work in my badly lodged wheat, as I had seen McCormick's tried repeatedly. and it was a perfect failure; but I was most agreeably disappointed. It cut any of my wheat better and faster than eight good cradlers could do, and I think it saved me from two to three dollars per acre in all my lodged wheat. in getting it clean and fast. In short, too much cannot be said in its favor. I would not sell it. if I could not get another, for one thousand dollars. for should I raise as much wheat for eight or ten years to come as I have for the last ten, it would save me more than that sum, and I think it will last me longer than that time. Yours, most respectfully, J. Norton.

June 1, 1850. RAPALJE & BRIGGS,
Genesee Seed Store and Ag. Warehouse, Rochester, N.Y.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y. warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it. promptly attended to. [4-4t] E. J. BURRALL.

Allen's Improved Portable Railroad Horse Power, Thresher, and Separator.

THE advantages of the above horse power, are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3. They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder, with a concave top, and possesses these advantages. 1 They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top. stones, blocks, &c., drop at the end of the table. and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *seperator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The seperator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of grain per day; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Seperator and fixtures,	$7
" Bands for driving, etc.,	$5
" Wood-sawing machine, complete, and in running order,	$35.
Price of Double Power,	$100
" with Thresher, Seperator, &c.,	$145 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfaction.

Also, Taplins 20 feet circular, and the Cast Iron Sweep Powers. Enquire at the New York Agricultural Wareheuse and Seed Store of A. B. ALLEN & CO., 189 and 191 Water st., New York.

WHEAT! WHEAT!!

To Wheat Growing Farmers! Save Time and do your work well!

SAGE'S BROAD-CAST SOWER AND SPRING-TOOTH HARROW, is the cheapest and most effective labor saving machine yet invented for wheat growing districts, being so simple in its construction, that any ordinary workman can fit one up to work with perfect accuracy, and so cheap as to be within the reach of all.

This Machine drew the first premium at the State Fair at Syracuse, and requires but five minutes examination, by any practical farmer or mechanic, to satisfy them that it will perform the work of sowing and harrowing accurately and effectually. and with as much dispatch as can reasonably be desired.

With a Machine that will not require more power than a common plow, one man and horse team can sow accurately, and harrow once over, 20 or 25 acres in a day. or from one to one and a half acres for every mile the team walks. according to the size of the Machine.

Letters Patent were obtained for the above article April 16, 1850. All communications. post paid, addressed to S. S SAGE. Windsor, Broome county, N. Y., will receive prompt attention.

Windsor. May 20. 1850. [7-1t*]

Seymour & Morgan's Improved Reaping Machine.

HAVING observed in the last number of the Farmer. an advertisement by C. H. McCormick, in which he alluded to the Improved Reaping Machine, manufactured by us, we would merely say. in reply. that what he so respectfully states in regard to our Machine being inferior to his, is not worthy of notice. from the fact. that wherever the two Machines are exhibited, to those who are best calculated to judge ol their merits, ours *never fails to take the preference*; and the gentleman having *learned from experience* that he cannot compete with us in a fair business-like manner in selling. has tried to frighten us from making our machine.—And now. as a last resort, he threatens the farmers. to prevent them buying of us, and at the same time (very disinterestedly of course,) offers to furnish them with his.

We will also say to purchasers, that we have but few Machines remaining unsold, and these we propose to furnish to those who wish a first rate article, and. at the same time, guaranty the right to use them, as we shall show Mr. McCormick, should he ever give us occasion. that our only *infringement is on his business*, and *not on his patent*. SEYMOUR & MORGAN.

Brockport, June 12, 1850. [7-1t]

Back Volumes of the Farmer we can furnish bound. Also, all works on Agriculture and Horticulture, Poultry, Sheep, &c.

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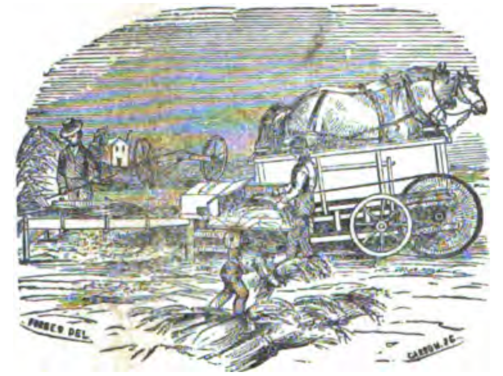

FORBES DEL.
CARSON SC.

Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers. Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for Machines, and to establish agencies, to any extent that may be desired.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania, Oh[illegible]d also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2.000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones.

These Horse Powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, (of a proper height to allow the feeder to stand erect, and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain, or short oats, and re-setting it at pleasure, for long rye or wheat, or oats in good order or for timothy grass or clover ; and all this is accomplished without stopping the Machine, so simple is the process. By means of the Separator, the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon ; but where frequent moving is desired, the two horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business, and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M. & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers ; and also Circular Saws, and Benches, for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M. & Co., or their agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two horse machine, complete, being less than 2.000 lbs., and of the one horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canada, where they are needed to facilitate the sale of these machines. Good agents are wanted in the Southern and Western States and the Canadas, to whom liberal commissions will be allowed.

Our agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester ; T. C. Peters & Brother, Buffalo ; Peter R. Sleight, Esq., Poughkeepsie ; F. F. Parker & Brother, Detroit ; John Melick, Trenton, N. J.; John Bowsfield, Kirkland, Ohio ; F. R. Elliot, Cleveland, Ohio ; Janes Williams, Bakers Town, Allegany Co., Pa.; Spears, Case & Co., Delphi, Indiana ; W. B. Arnold, Franklin Centre, Iowa ; Ephraim Abbott, St. Louis, Mo.

W. D. Bacon, Waukesha, is general agent for Wisconsin.

These machines may also be had of John Mayher & Co., New York city.

WHEELER, MELICK & CO.

Hamilton st., corner of Liberty and Union sts., Albany, N. Y. and Chicago, Illinois.

May 1, 1850.

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it Price $2 only ; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp, 35 fine engravings ; the most popular work ever published on the culture of bees. Price $1 ; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850. [6-tf]

First in Beauty and Value — Cheapest and Most Popular.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

FIVE Copies for $2 ; Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to

DANIEL LEE.
Rochester, New York

December, 1849.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—AUGUST, 1850. NO. 8.

RESUSCITATION OF WORN OUT LANDS.

UNDER the above heading the *American Artisan*, published in the city of New York, has the following remarks :

"'To repair damage already done to the soil, (of the United States,) will cost over one thousand millions of dollars.'

"Such is the conclusion of the Patent Office Report on Agriculture, on the subject of Chapter II, 'What the country has lost by impoverishing its soils.' This impoverishing is effected by the unwise mode of culture that takes off the soil all it can and puts nothing on. That there is a vast amount of such culture, statistics as well as observation abundantly show ; and the waste of labor and loss of profit by such culture is immense, no doubt fully equal to what this Report states. But its conclusion that it will require millions to restore these lands, is fallacious. The Report itself refutes its own conclusion, when it states a well known fact in proof of its position, that 'this deterioration is not unavoidable, for thousands of skillful farmers have taken fields poor in point of natural productiveness, and instead of diminishing their fertility, they have added ten cents on an acre to their annual income, over and above all expenses,'—yes, and often much more. And there is not an acre of these worn out lands that can not be resuscitated by such skillful farmers, without cost and with actual profit. The startling, unfounded position which the Report put forth, that it 'will cost on an average $12.50 an acre to renovate the partially exhausted lands of this State,' is not sustained by a single proof. There is quite a penchant in the Commissioner to make startling statements. He says, 'a million tons of human food pass down the Mississippi, where one ton of the elements of such food ascend,' just as if, for the production of this food, such a return of the elements of it was necessary. There is no truth in either of the theories. The elements are in the air, water, and earth, and the process of resuscitation can be carried on not only without loss but with profit. The cost of the manure, which, as that of leaven to the bread, will be more than returned in the crop, and the land more and more enriched each year by a right cultivation, which is ever a profitable one. The productiveness will be increased or renewed each year, much on the principle that leaven produces or multiplies itself when the appropriate materials are in contact with it. And as to the vegetative power of the earth, let there be due proportions of air, moisture, and warmth on any land, be it even nothing but sand, it will be manifested. But when aided by manure, it will be with far greater rapidity and always with profit without loss, if skillfully done ; and the outlay is no actual cost in the sense of this Report, when there is a profitable return over all expense of cultivation.

"The great importance of this subject to the country, is fully borne out by the statistics it gives. The yearly diminishing of production from the acre, till it becomes so little as to cause the exhausted land to be abandoned, is a wide spread process, going on over the whole country, and well may Government resort to measures to arrest it. But alarming statements of thousands of millions of cost to do it, will not promote it, but only aid to continue it. What is wanted, is the full and enforced statement, with its proof over the whole country, that the deterioration is not necessary — that it is solely the result of wrong culture — that the abandonment of an acre is an acre of condemnation of the farmer who does it — that in fact there is within the power of every farmer the means of resuscitating every acre at a cost less than it will require to subdue new land. This should be done ; and may the census now to be taken be used to effect it, and every agricultural paper, report, or society in the land, give its influence to impress on the public mind the truth that there is no necessity for this deterioration — that it is the sole effect of wrong cultivation — that the right will not only prevent it, but is far the most profitable — that the single principle of leaving half the annual vegetation on the land will enrich it, and this is all the change required. The forest is enriched from its yearly fall of leaves and dead limbs. The careful use of the grape leaves has been found ample to keep the grapery productive."

The writer of the above may know what is the "right cultivation" to prevent the "deterioration" of cultivated land ; if so, his light is most effectually hid under a bushel. No one not a fancy writer on agriculture would say that "the productiveness will be increased or renewed each year, much on the principle that leaven produces, or multiplies itself, when the appropriate materials are in contact with it." But, most sage critic, suppose "the appropriate materials" are lacking in the soil or in the "kneading-trough ;" what then ? Will your "leaven" make wheat or bread without "the appropriate materials ?" Certainly not.

When we stated that there were 8,000,000 acres of land in the State of New York so much exhausted that $12.50 an acre would no more than renovate them, calling for an outlay of $100,000,000, criticism was both expected and desired. The truth can only be elicited, and the evil corrected, by public discussion. To provoke this was the deliberate aim of the "startling statements" erroneously ascribed to the Commissioner of Patents. They were made by one who was born and reared on a farm in the State of New York, and who has devoted most of his life to the study of this and kindred topics. That partially exhausted soils may be improved with a profit, is a point for which we have long contended; but in New York the profit will be diminished from $10 to $15 an acre, before the land can be fully renovated. If so, the injury done to impoverished fields, and damage to their owners and the State, is an average of $12.50 an acre. There are 12,000,000 acres under cultivation in New York, and from our childhood up we have seen farmers extract potash and bone-earth from this soil, and send both to distant markets, never to return. Will any man of common intelligence say that this vast area of impoverished soil contains as much of the elements of *bones*, and as much *potash* and other alkalies, now, as it did seventy-five years ago? One-half of the earthy matter removed in a crop of potatoes, is potash; and one-third of that taken out of a field in the seeds of wheat, is the same alkali. Whether a farmer buys wood ashes and bones at their market price, or labors for years to draw them from his sub-soil, in either case it will cost him from $10 to $15 an acre to supply his surface soil with as much as God gave it before man began to till it, and *waste* its elements of food and clothing. Man has not the power to curse the earth with irredeemable sterility. But to say that to impoverish it does not involve an injury to the community, and the necessity of a loss of labor to renovate it, is simply to assert what every man of sense knows to be untrue. No hocus-pocus, "leaven in bread," will add lime, soda, potash, phosphorus, magnesia, chlorine, sulphur, soluble silica, or rich mold, to a worn-out cotton, corn, or wheat field. "The vegetative power of the earth, with due proportions of air, moisture, and warmth, on any land, be it nothing but sand," is a very pleasant *dream*, but nothing more substantial. No amount of pure sand, air, warmth, and moisture, will form the bones in a man's little finger, nor the brain in his cranium. His daily bread and meat must contain other ingredients extracted from the earth.

To increase its natural productiveness is entirely practicable; but it will cost money or labor to achieve this desirable result. Nor can the end ever be attained by falsely asserting that "a million tons of human food" may be annually taken from as small an area as will produce it, without restitution, and not deteriorate the soil. There are scores of writers on agriculture who teach this false *theory*, and call it *science*. How much an acre of land can spare of grain, cotton, or other crops, every year, without detriment, depends mostly on its chemical and geological character, but partly on its mechanical texture. Not before farmers are willing to foster the study of agriculture as a learned and useful profession, will they ever understand the true capacity of the soil to feed and clothe the human family. It is not far from the precise truth to say that they waste as much hard work, needlessly and heedlessly, every year, as all the mechanics, merchants, doctors, lawyers, and others, perform. There are in the State of New York alone, 500,000 tillers of the soil, who in the main work very hard to make large crops out of small materials; acting on the principle that a little yeast should give an ovenful of bread, without flour or meal! The nightsoil annually wasted in the State of New York, would make thirty million bushels of wheat, if saved, properly deodorized, and drilled in with the seed. This fertilizer is the bone and muscle of the land, drawn from its surface and thrown away, to compel the next generation to give more honest sweat for their food and raiment, or emigrate to the virgin soils somewhere this side of sun-down.

PATENT OFFICE REPORT.—Part II.

AGRICULTURAL METEOROLOGY.

There are few sciences the study of which is more useful to the farmer than that of Meteorology. A soil may contain all the atoms required to form a luxuriant crop, yet, if the temperature of the ground, or of the air above it, be too low, vegetation makes no progress. Again, the earth and atmosphere may have a due degree of warmth and light, as well as abound in all the food of plants in an available form, except *water*, and the absence of this element will be fatal to the hopes of the husbandman.

Atmospheric air, light, heat, electricity, rain, dew, snow, and frost, exert a controlling influence over the growth of all cultivated plants. A knowledge of the natural laws by which these generally invisible and imponderable bodies are governed, so far as researches have revealed them, is alike valuable and interesting. The atmosphere and the numerous phenomena of which it is the theatre, should command more attention in this country than they hitherto have received, if we intend to keep pace with the progress of physical science in Europe. To encourage the study of meteorology in its application to agriculture, is the object of this chapter.

The Atmosphere is mainly composed of two distinct gases, which are invisible but not imponderable bodies, and every where surround the planet, like an ocean. It has a mean depth of some forty-five miles. The gases which form the air are called *nitrogen* and *oxygen*. According to the accurate analysis of dry, pure, air, made by MM. Dumas and Boussingault, 100 parts consist of 20.8 oxygen and 79.2 nitrogen. These chemists found from 2 to 5 parts of carbonic acid in 10,000 of atmospheric air. Dr. Fresenius has ascertained that the proportion of ammonia in the atmosphere is as 1 to 2,000,000, varying to 1 to 3,000,000. Undoubtedly there are many other volatile and gaseous bodies in the atmosphere, in a state so extremely diluted and diffused as to escape all chemical tests. Sir Robert Kane found that sulphuretted hydrogen will pass through a thin piece of India rubber into the atmosphere, against a pressure equal to fifty times the weight of common air. Gaseous compounds of phosphorus, chlorine, and sulphur, are constantly discharged from decaying animal and vegetable substances into the atmosphere. These gases fall to the earth again in rain-water. It is one of the laws peculiar to all gases, that the presence of one in any given space does not in the least prevent several others from occupying the vacancies left between atoms of gas that seem to repel each other with singular aversion. The facility with which the atmosphere takes up vapor when water evaporates, is familiar to all.

This capacity to hold immense quantities of water imbibed from the ocean, lakes, rivers, the foliage of trees, and moist earth, in a volatile condition, to be distributed over broad continents, is a wonderful provision of nature. But the filling of the air with water, like a wet sponge, is less remarkable than the contrivance for *squeezing the sponge*, so to speak, and causing the diffused moisture to fall in gentle rains, snows, and dews. The *drying* of the atmosphere, after it is saturated with water, is a phenomenon without which it would never rain; nor could there be any springs, rivers, land plants, or animals on the globe. This precipitation of water is effected by a change of temperature, which change is the result of the revolution of the earth on its axis, and of solar heat. Day and night, spring, summer, autumn, and winter, with their ever-varying temperature, varying winds, and clouds, and constantly changing humidity, are all results of fixed laws, which invite the research of every reasoning mind.

Solar Heat.—According to Professor Forbes, the rays of heat coming from the sun and passing througe the atmosphere in the shortest line, at the latitude of Paris, lose 25 per cent. of their calorific power by the time they reach the earth. Rays that strike the atmosphere at an angle of only 25°, part with half their intensity, or heat, by the time they touch the ground. The molecules of air absorb and radiate heat into space, the same as other ponderable bodies. Hence, no matter how clear the atmosphere, neither the rising nor the setting sun imparts so much light or heat to those parts of the earth so affected, as they receive when the sun is at the meridian. The effect of solar rays on the earth is still further diminished morning and evening, by the fact that fewer fall on any given area, because they impinge upon its surface obliquely. One can look at the setting sun with impunity, not because it emits less heat or light at that time, but because the rays are mostly absorbed and radiated in passing through many miles of atmosphere before they reach the eye of the observer.

The facility with which solar heat penetrates and warms the soil to the depth of six, twelve, eighteen, and twenty-four inches, and the radiation of heat from the earth, the leaves of plants, and all other substances, deserve particular notice.

A distinction must be made between the radiation of heat from the surface of any body, and the transmission of it through any substance, as iron, wood, water, mold, or soil. All these hold different relations to this peculiar element. It is not intended to take more than a popular view of this subject. At the time of seeding in spring, a single day is sufficient to warm to the depth of four inches, a mellow soil recently plowed. Two days of sun will warm the ground six inches, and six days twelve inches. The fall of warm rain on a well-drained, mellow soil, greatly hastens the heating of the earth. On the contrary, the fall of a cold rain, or much cold water in the ground, greatly retards the rise of temperature in tilled land. Heat and water should be studied together, if one would obtain a clear idea of their joint influence on vegetation. When water evaporates, it expands to 1,696 times its former volume, and renders latent, or insensible, a considerable amount of active heat. Hence, a wet piece of ground, from the surface of which a good deal of water evaporates, is always cooled by the constant loss of sensible heat which rises in vapor and departs far into the atmosphere.

The warmer the atmosphere, the greater is its capacity to hold water in the condition of a diffused, invisible vapor. The lower strata of air are heated much more by caloric radiated from the earth than by the absorption of heat from the sun in its passage to the planet. Air thus heated becomes expanded or rarified, and specifically lighter than the colder air above it. This causes the air within and near the tropics to rise high above the surface of the earth, and flow over both north and south, toward either pole, while colder and heavier air rushes in toward the equator to fill the empty space. These ærial currents are deflected in their courses by the diurnal revolution of the earth, and by mountain ranges whose summits are often covered with eternal snow; and they are still further modified by the varying temperature of the ocean and its peculiar streams.

Heat and water are the fruitful parents of winds and clouds. When aqueous vapor is precipitated in rain or snow, heat that was latent becomes again sensible, and by increasing the capacity of the air to hold water in the form of vapor, prevents a disastrous deluge of this abundant element in nature. The laws which restrain the precipitation of water from the clouds are no less curious than those which cause it to rain at all. The atmosphere must approach saturation before it can rain; and it usually happens that the quanties which will fall on a given area, one hundred feet above the ground, and on the earth, are unequal. Large drops, in falling through many feet of dry air, become smaller by constant evaporation, and may be wholly dissipated before they reach the earth. On the other hand, quite small drops formed in cold regions, high in the air, constantly condense more vapor in falling through a saturated atmosphere, and will be many times larger when they reach the ground than at their starting point.

To illustrate the production of rain, let us suppose that a current of air at 70° temperature, saturated with moisture, meets and mingles with another current, also saturated, but having a heat of 50°. Now, if the atmosphere at the mean temperature of 60° had a capacity to hold water as an invisible vapor, equal to the mean of 70° and 50°, it is obvious that no precipitation would take place. But such is not the fact. The quantity of water held in air heated from 60° to 70° can not be contained in that heated from 50° to 60°. In other words, whatever cools air saturated with moisture, causes a cloud, dew, mist, or rain.

Early and late frosts are produced by the radiation of heat, during clear nights, from the foliage of plants and other terrestrial bodies. If the temperature of the air is not very low at sundown, and is humid, vegetation will so soon reach the *dew-point*, that the latent heat, evolved by the formation of much dew, will prevent a frost. If the atmosphere is dry, clear, and still, the dew-point is lower, and all the circumstances are favorable to freeze the little vapor condensed on such substances as radiate heat with the greatest facility. Any thing which checks the radiation of heat, like a cloud, smoke-screen, or wind which agitates the atmosphere, serves to prevent frost. Every farmer should have a thermometer and rain-gauge, and know the degree of heat most favorable to all his crops. The dew temperature and moisture of the soil are as much elements of production and profit, as good manure and skillful tillage. The writer has studied the growth of corn in different months, noting the changes from 4 o'clock a. m. to m., from noon to 8 p. m., and from 8 p. m. to 4 a. m. When the temperature is favorable, corn grows as much per hour in the night as in the daytime. No agriculturist is so far advanced in the science of climatology, as to make all that can be made of the water, solar light, and heat, which nature so bountifully supplies. There is no State in the Union where the mean temperature of summer is too low to ripen maize, or corn, as is the case in England, Scotland, and Ireland. The cutting down of too much timber in some parts of the country has operated to change, in some degree, the climate, and render large districts more subject to alternate drouths and rainy seasons. In summer, when frequent and moderate rains are greatly needed, the air is too dry to yield much more than respectable dews, for many weeks in succession.

To learn the well authenticated results of cleaning forests, in drying up natural springs, and changing climates, regularity of rains, &c., the reader is referred to the writings of HUMBOLDT, KAEMTZ, FORBES, BOUSSINGAULT, and other meteorologists. HUMBOLDT remarks: "In felling trees which cover the crowns and slopes of mountains, men in all climates seem to be bringing on future generations two calamities at once — a want of fuel and a scarcity of water."— (Humboldt, vol. v, p. 173.). The waste of valuable timber in the United States, to say nothing of firewood, will hardly begin to be appreciated until our population reaches fifty millions. Then the folly and shortsightedness of this age will meet with a degree of censure and reproach not pleasant to contemplate.

Different plants require unlike degrees of heat and light to bring them to maturity. The potato will produce an edible tuber at a mean temperature so low that neither its own seeds nor those of any cereal can be formed. BOUSSINGAULT found them cultivated in South America at an elevation having a mean heat so low as 49°, requiring eleven months in which to grow, or 335 days between the planting and digging. In many parts of this country, persons begin to dig potatoes in seventy days from the planting; and potatoes planted the 1st of May will be ripe by the 1st of August. In some of the southern States they grow best in the winter season. Winter barley and rye will mature their seeds at a lower temperature than wheat. HUMBOLDT found at Jakoustk, in high Central Asia, where the earth was constantly fozen at the depth of three feet below the surface, both rye and wheat yielding a return sometimes of 15 to 1 of seed. At that place the mercury is frozen two months in the year — the cold being over 72° below freezing. Short as the summers are, they have a mean temperature of 64°. On the northern slope of Monte Rosa, in Switzerland, barley ceases to grow at an elevation of 4,260 feet above the sea; on the southern side it continues to be cultivated at the height of about 6,560 feet. BOUSSINGAULT says that the difference is ascribed to local causes.

In studying the mean temperature and annual fall of rain, including snow and dew, in the United States, and the distribution of both heat and water through the year, one can hardly escape the conviction that no other equal area on the globe has equal agricultural capabilities. Without including Delaware, there are within a fraction of 600,000,000 acres in the southern States. On two-thirds of this vast surface, wheat is harvested early enough in May and June to permit a crop of corn to mature on the same land before autumn frosts. By drawing a line from the Atlantic due west to the Rio Grande, so as to have 300,000,000 acres south of it, on every arable acre two crops of our most valuable breadstuffs can be harvested in a year. Allow one-third of this area for forests, the beds of rivers, and irreclaimable surface, and there are left 200,000,000 acres for cultivation. On the supposition that the south had a population adequate to demand such crops, 100,000,000 acres might be drilled with seed-wheat in November, after corn harvest, putting half the needful fertilizers in with the seed, and sowing the balance broad-cast in February or March, after the English and Belgian practice.

With skillful culture and feeding, an average return of twenty bushels per acre may reasonably be expected, producing an aggregate crop of 2,000,000,000 of bushels. This crop would be harvested between the 15th of May and 15th of June, after which a crop of corn may be grown. With a dense population, as in Belgium, France, and many parts of China, there can never be a real lack of fertilizers, so that sixty bushels of corn can be produced on every acre of arable surface in our thirty States. By this estimate it is seen that the same land which had produced 2,000,000,000 bushels of wheat, might, so far as the *climate* is concerned, easily yield 6,000,000,000 bushels of corn in season to seed with wheat again.

Governor HAMMOND of South Carolina, estimates the present capacity of the slaveholding States as equal to the support of 200,000,000 of inhabitants. To give Virginia as dense a population as Belgium has, (which exports far more of human food than Virginia does,) would require all the people now in the United States to reside in the "Ancient Dominion."

Of the other 100,000,000 acres of arable soil, one-half may be planted in cotton, and enriched no more than to give an average of a bale of 400 lbs. to the acre. This will secure an annual crop twenty times larger than is now grown in the United States, and fifteen times larger than the consumption of the whole human family. There will still remain 50,000,000 acres adapted to the culture of sugar-cane, rice, tobacco, and other important staples.

The United States possess a territory embracing over 2,000,000,000 of acres, more than a moiety of which is susceptible of tillage. Taken as a whole, the country has a climate whose mean temperature and fall of rain greatly favor the production of human food and clothing.

As we are now engaged in laying the foundations of an empire such as the world has never seen, nor scarcely conceived possible, every advantage of soil, climate, natural product, and such valuable trees for timber, fruit, and fuel, as may be profitably cultivated, should command universal care and study.

The following meteorological tables and statistics are compiled from the accounts received at this office, and contain valuable information as to the temperature, fall of rain, &c., in various parts of the United States. We condense as follows:

MEAN ANNUAL DEPTH OF RAIN.

Places.	*Inches.*
Fort Constitution, New Hampshire,	28.85
Watertown Arsenal, Massachusetts,	39.69
Fort Hamilton, New York,	45.71
Hancock Barracks, New York,	36.92
Watervliet Arsenal, New York,	34.22
West Point, New York,	48.79

Places.	*Inches.*
Alleghany Arsenal, Pennsylvania,	28.14
Dearbonville Arsenal, Michigan,	31.30
Fort Brady, Michigan,	31.89
" Howard, Michigan,	38.83
" Winnebago, Michigan,	31.88
" Snelling, Minnesota,	30.32
" Crawford, Wisconsin,	29.54
" Leavenworth, Missouri,	32.68
St. Louis Arsenal. Missouri,	24.12
Fort Smith, Arkansas,	35.64
Fort Gibson, Arkansas,	30.64
Fort Towson, Arkansas,	46.73
New Orleans Barracks, Louisiana,	51.85
Fort Wood, Louisiana,	47.90
Key West, Florida,	31.39
Charleston, South Carolina,	33.89
Fort Monroe, Virginia,	52.53
Fort McHenry, Maryland,	40.80
Washington, D. C.,	34.62
Baltimore, Maryland,	39.90
Boston, Massachusetts,	39.23
Hanover, New Hampshire,	38.
State of New York,	36.
State of Ohio,	36.

MEAN ANNUAL TEMPERATURE IN 1849.

Places.	*Fahrenheit.*			
Cambridge, Massachusetts,	47	deg.	48	min.
New Haven, Connecticut,	49	"		
Rochester, New York,	46	"	68	"
Penn Yan, New York,	45	"	46	"
Newark, New Jersey,	50	"	89	"
Delaware county, Pennsylvania,	52	"	37	"
Near Louisville, Kentucky,	53	"	8	"
Columbia, South Carolina,	61	"	62	"
Jackson, Mississippi,	65	"	64	"
Fort Madison, Iowa,	49	"	62	"

BEES.—No. 2.

Drones.—The object and uses for which drones were created have been a mystery, to some extent, through all ages. The opinions of naturalists and apiarians have ever clashed on this subject. Some have thought that their duty was to incubate, or hatch the eggs, by sitting over the cells, thereby generating the necessary heat; others, that their presence in the hive, though not located to any specific duty, was requisite to generate a proper degree of animal heat to develop the young brood; others, that a seminal aura exhaled by them, and attached to the eggs, imparted the life principle. The visionary theories and vagaries of the ignorant were, and are at the present day, wild and extravagant — some ascribing to them this duty, some that duty, and some no duty at all, but simply considering them a disadvantage to the welfare of the apiary, and the sooner got rid of the better.

Of late years more light has dawned on this subject, and it is now pretty well settled that the use of drones is solely to impregnate the queens. It has ever been known that they were *males*; but the fact that 500 or 1000 of them exist in every hive, threw another cloud of mystery over the matter, since but *one* female exists. Now, the solution of this question is thus unfolded: — The impregnation of the queen takes place *on the wing*. She never leaves the hive after issuing with a swarm, but *once*, until she again issues the next season with a swarm. This solitary departure from the hive is always within three days after the hiving, and generally the next day, and only occurs with *young* queens; the old ones being impregnated on their first issue, continue operative for life. If any one will patiently watch a hive in which a swarm is placed, with a young queen, (all swarms after the first,) he may discover her issuing, first rising a few feet and taking a short circle, and then returning, as if to mark well her tenement, lest she enter a wrong hive on her final return, if there be others; then suddenly re-issuing and rising in horizontal elongated circles, until lost to the sight. This departure takes place between 12 M. and 2 P. M., at the time when the drones issue and also take an ærial flight. Hundreds of drones are flitting to and fro at this period, high on the wing, and the queen can not fail to come in contact with some of them, and thus effect the object of her flight. She is absent from the hive about an hour. That coition takes place on the wing,' is evident from the well known fact that humble bees perform their amours in this way, and most, if not all other winged insects. The great apparently useless number of males in this case is only in accordance with the wisdom of Nature in providing enough to always ensure the fertility of a queen, as the prosperity of the colony depends upon her immediate fertility. Much may be said in further illustration of this subject, but my limits here forbid it. T. B. Miner,

Author of the American Bee-Keeper's Manual.

Clinton, Oneida Co., N. Y., 1850.

APPEARANCE OF THE CROPS.—GEOLOGY

Messrs. Editors: — I am about to recommence farming after the sage advice of the quaint old Richard — "either hold or drive;" and that I may drive after the most approved fashion, I must have your valuable paper. Please consider me a subscriber for the year.

I have just made a trip across the State, from the Pennsylvania line, and thinking a brief description of the appearance of crops might be interesting to your readers, I will briefly give it. In the southern section the grass appears very backward, owing to the late spring and long continuance of cold weather. Within a few weeks there has been a rapid gain; still it is quite thin, and I judge there will be a short crop of hay. Corn is coming in well. The late warm weather is the true corn weather — thermometer 84° in the shade. The early planted is not doing as well as the late — say the last of May. I planted the last day of May, taking the precaution to soak my seed in a solution of saltpetre, and not a hill failed — hardly a kernel. It is now farther advanced than that planted the tenth of the month, while the ground was yet cold. A late fall and warm summer will give a good yield of corn. Along the Genesee flats — these miniature prairies — this crop looks better than on the hills. Oats appear well, and a good quantity sowed. Of wheat I saw but a few fields until I reached Portage and Hume; in Canadea, a little. The weather of the spring has been favorable to this cereal — it has kept back the "fly," there not being sufficient warmth to hatch the eggs until the stalk was so far advanced that it could not be injured by the insect. I heard no complaint from any farmer, or in any neighborhood, from this cause. From Mount Morris north, the wheat looks well, except where winter-killed.

How beautifully, Messrs. Editors, is the theory developed, that the limestone rock, especially the Onondaga salt group, is the true source of the wheat growing soil. By traveling from the south line of the State to the north, while you are on the Chemung group, tipped with the conglomerate at and near the State line, you will hardly hear of a field of wheat in a ride of many miles. As you draw near the Hamilton group, they become more frequent. Passing over this shaly region, on every side you see very good fields of wheat; but on the next series—the limestone—wheat becomes the crop. While writing of this striking fact, I am reminded of a Yankee farmer from Connecticut, who, when the "Genesee country" was far on the utmost verge of the west, becoming tired of rye and Indian, determined to find a country that would bear wheat. He had heard that on the Delaware river, in northern New Jersey, was the land of this crop. He sold his paternal acres, and emigrated to the banks of the Delaware. Experience soon showed him that only the first crop from the stump was good for this grain. The Chenango valley then had a reputation for wheat. He sold out, and reached "Chenango Forks." A few years satisfied him that although he seemed to be nearer the desired land, still he had not attained his mark. A German emigrant, returning to Pennsylvania from the "lake country," informed him that limestone land was the land for wheat, and that between the lakes he could find a good wheat soil. Pulling up his stakes for the third time, he soon reached his El Dorado, as happy as any recent gold-hunter in California. In Seneca county he became a successful grower of wheat to his heart's content. How slight a knowledge of geology, and of agricultural chemistry, would have taught this man the true spot to strike in his axe and thrust in his plow, and not be twice disappointed. A **New Subscriber.**

REMARKABLE FLEECES.

Messrs. Editors:—An article headed as above has appeared in the Cooperstown Freeman's Journal, stating that Mr. C. Vanhorn of that town, sheared 81½ lbs. of wool from 14 sheep, 12 of them being ewes, 10 of which had lambs; two were yearling bucks, that gave 17½ lbs.; that five of the number were full blood Merinos, and the others crossed with the English breed; that the sheep were well washed and perfectly dry when shorn; and asking if it can be beat.

If Mr. Vanhorn has sold his wool for cash, we should like to know the price, as we could tell better whether he could be beat. My sheep were shorn on the first week in June last, and from 2 bucks three years old, and 12 ewes, all full blooded Merinos, I sheared 86½ lbs. of wool. Seven of the ewes had lambs by their sides, the other five were yearling ewes that of course had no lambs. The fleeces of the two bucks weighed just 20 lbs.—one weighed 10 lbs. 11 oz., the other 9 lbs. 5 oz. They were all well washed, and dry when shorn, and the wool done up in good order and sold at home for 37½ cents per lb., to E. Baker & Co., of Burdett, who have bought my wool every year for five years past, and are therefore well acquainted with it.

My flock consists of about 300. Four of my bucks, three of which were three years old, the other five, sheared 37½ lbs. Two of them are for sale. My stock buck "Columbus," which is three years old, and which gave the 10 lbs. 11 oz. fleece, and has sired all my lambs for two years past, is from the flock of Mr. Stephen Atwood of Connecticut. I think him the best buck I ever saw. **Reed Burritt.**
—*Burdett, Tomp. Co., N. Y., July, 1850.*

* * *

A farmer should never allow his wood-house to be emptied of wood during the summer months.

IMPORTED FRENCH MERINO SHEEP.

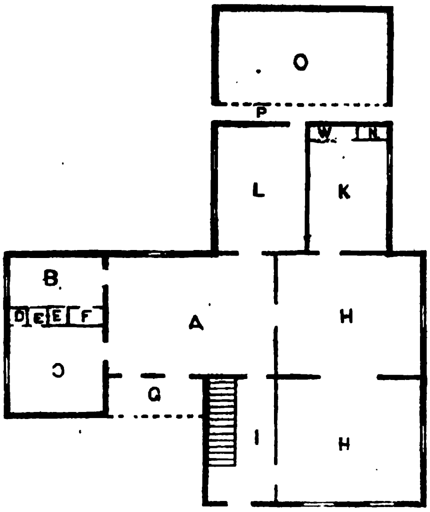
Messrs. Editors:—I was thinking that perhaps it might be somewhat interesting to the readers of your valuable paper, to give them a brief account of my imported French Merino sheep, as there seems to be some considerable excitement in reference to them in your State. I will give you the weight of fleeces of 83 of my French imported Merino ewes, in comparison with the weight of carcass. I should have been glad to have given you the weight of carcass of each sheep separately, but it would make too long a list; I therefore give you the weight in gross. Weight of carcass, 10,458 lbs.—average weight of each sheep, 126 lbs.; this includes 27 lambs only ten months old when shorn. Gross weight of wool of 83 sheep, 1494 lbs.—average weight of fleece of each sheep, 18 lbs.; only one year's growth, except 27 lambs ten months' growth. This, I see by the figures, gives me 2 2-7 ounces for every pound of flesh. I raise from these ewes three crops of lambs in two years, which I think retards the growth of wool in a measure, particularly for the first four weeks after dropping their lambs, and for two weeks after weaning time. The smallest fleece was from a ewe lamb ten months old—13½ lbs.; the heaviest from a ewe three years old—25½ lbs. of one year's growth, unwashed. Manufacturers and other men tell me that it is full enough to deduct one pound in five for river washing, so that it would give each sheep 14 2-5 lbs. of washed wool, long, fine, and soft. These are the sheep that I am now breeding. I have 105 ewes, old and young. I have recently purchased of Mr. John A. Taintor his entire flock, so that I have in my possession all of the ewes of this blood in the United States, except 27 which are owned by other individuals scattered over the country. I have made three crosses with the French bucks on my old flock of American Merinos, with the utmost satisfaction—it has proved the best cross I ever made, by all odds. My half-bloods are selling from $5 to $10 more per head than I used to sell my old stamp of Merinos, and shear from 1 to 2 lbs. more wool per head, and of finer quality. I have sheared 100 of my American Merino sheep, to compare with my French Merinos. I find the gross weight to be, in the same condition of flesh and age, 9000 lbs.—the average weight of carcass for each sheep, 90 lbs.; the gross weight of fleece, 650 lbs., unwashed—average weight of fleece, 6½ lbs.; giving me 1 1-6 oz. for every pound of flesh, making a difference in favor of the French Merinos of over 1 oz. for every pound of live weight. This is a very great difference, while the difference in weight of carcass is only about one-third. The French Merinos must be *the sheep*. I have also kept a little track, the past winter, of the relative value and difference in the consumption of food between the two breeds. I find that the Frenchmen will consume only from one-fourth to one-third more food than my old flock.

I have noticed one very peculiar characteristic in the French sheep—their quietness, and aptness to take on flesh. I have turned 41 ewes into a pasture of not more than eight acres; they have been in the pasture three weeks, and I will venture to say that they have not traveled over one-half of it yet, while my other sheep would have traveled it over a thousand times. This one thing is one great reason why they take on flesh so easily; they eat and then lie down. The more easily an animal fattens, the less food will it take to support them. To say that all animals of its kind will consume food in proportion to its live weight, is erroneous in the extreme.—This trait in a sheep has been too much overlooked and disregarded. Men have considered this feature in a sheep hardly worth noticing, while the same thing in a horse or an ox would be regarded with peculiar care. I have thought for years that this was one of the essentials in a good sheep. If a man regards expense at all, he would value any animal higher that has this trait fully developed. Too many men, who pretend to be celebrated breeders of all kinds of stock, are too much carried away with one prominent trait of an animal, to the covering up of almost all the rest. Fancy goes a great way with too many men, to the exclusion of many valuable points. There are many fancy animals which would sell for high prices, that are perfectly worthless as breeders. I go for an animal that combines the greatest number of good points, and those points finely developed, whether in sheep, cattle, or horses. This ought to be a grand governing principle in a thorough breeder of either. To breed animals that have the intrinsic value engendered in them, that will be productive of some good to himself and his country, ought to be the aim of every man. Too many men go for a cheap thing; and it oftentimes proves itself to be cheap both in the pocket and out. I think as many as two-thirds of the men who breed sheep, would use a buck to their ewes bought for $5, because it is cheap, rather than pay $50 or a $100 for an extra animal; and it proves to such men, in nine cases out of ten, prodigious cheap. I go for the value in the animal — the more the better, — and I contend that a man gets a greater return for his money expended, by far. We will take, for illustration, Black Hawk colts. There are many men here who have most excellent breeding mares, who have actually disgraced them by putting to a horse to warrant a colt for $5 — the colts, when four months old, you could hardly raise a bid for at $15 — while other men have gone to Mr. Hill, the owner of Black Hawk, and paid him $20 for a colt that will sell, when four months old, for $100 to $200, and even $500.

There is a man living a few rods from me who has a Black Hawk colt two weeks old; he has refused $200 for him. Another man, a few rods farther, has one three weeks old, and has positively sold him for $500 when four months old. Where is the comparison between the two? The one pays $5 for a colt, and sells for $15; the other pays $20, and sells for $500. This is no unusual occurrence. There never has been a single Black Hawk colt sold, to my knowledge, for less than $100, and from that up to $1500. I say again, where is the comparison? Eternity will close in upon many a man before he gets his eyes open to these things, or the opportunity of breeding from valuable animals may be gone by. The same thing holds good in reference to sheep and cattle — it is far the cheapest to breed from the best animals, regardless of expense. I am, for one, in for improvement regardless of expense and the cackling and barking of men. *Taintor* sheep, *Black Hawk* colts, *Hereford* and *Durham* cattle, — this is the true doctrine, together with the improvements in agriculture, commerce, and manufactures. These are the step-stones to our own wealth and happiness, as well as that of our country. A. L. Bingham.—*Cornwall, Vt., June*, 1850.

PLAN OF A FARM-HOUSE.

A, Front Kitchen, 18 by 14. B, Bed-room, 8 by 10. C, Pantry. F, Closet. E, E, small Cupboards from Pantry. D, Meal-chest. G, Piazza. I. Hall. H, H, Parlors with folding doors, each 16 by 14, or both 28 by 16. K, Bed-room. L, Back Kitchen. P, P. Passage. O, Wood-house.



Messrs. Editors:—I herewith send you the ground plan of a farm-house, which I think meets the wants of a very large class of your readers better than any I have noticed among the many excellent ones presented in your valuable paper. First, I think a farm-house should be convenient; for convenience saves time, and time is money. Second, It should be substantial, and exhibit architectural beauty, to some extent at least; yet the expense should be graduated by one's available means. The great objection to most of the plans offered, is, they are too expensive. A majority of your readers are men of small resources; very many are largely in debt; yet many of these must have houses to shelter them, who can ill afford to expend $1500 or $2000 in a house. Right glad am I, Messrs. Editors, that you inculcate upon our farmers the *duty* of keeping clear of debt as far as possible. The idea is a good one, and our minds need often to be stirred "up by way of remembrance," on this subject.

Thinking my house combines convenience, economy, and good taste, to some little extent, I place the within plan at your disposal. It is built one and a half stories in height, and very nearly upon the within plan. I am now erecting the wood-house, &c. The main building is 28 by 24 feet; wing, 20 by 18; wood-house, &c., 20 by 26. It is bricked between the studs, lined with inch boards, and clapboarded. The wood-house and back kitchen are to be boarded up and down, and battened with inch stuff. Walls of the lower rooms are mostly hard-finished. Painted inside and out. The cellar extends under the whole house. A very large cistern in the cellar, directly under the pantry and bed-room, with a stop-cock to draw water into the cellar, which, being filtered, is used for dairy purposes. The cellar bottom is plastered with water-lime. The house is well and substantially built, and cost, including board and team work, about $625. The wood-house will cost something over $100. It was built by the job, and I think it was done at a low rate. But a similar house can be built here, with good management, for from $800 to $900. Some will say it is too small; but to this I reply, *room* often depends more upon *arrangement* than *actual size.* A small house is easier cleaned, easier taken care of, easier warmed, and furnished with less expense than a large one. Rusticus.—*Rutland, Jeff. Co., N. Y.*, 1850.

SUB-SOILING.

Messrs. Editors: — Did you ever hear of *skinned* land? If not, I will explain the term, this wise: Land that has been cropped for a long succession of years skin deep, i. e., worked four or five inches deep; the manures made upon the place sold each spring to the neighbor paying the best price for it. Just such a place of twenty-five acres, beautifully located near our city, I have recently purchased, intending to ride my hobby *Horticulture* to my heart's content. My first step was to doom to the dung cart a pair of horses, who ply steadily their three cords per day, consisting of stable manures, leached ashes, limed hair, charcoal from the rectifyer's, sweepings from the smith's shops, bones, old plaster, lime rubbish, and last though not least, street dirt. These ingredients are carefully spread over the land, preparatory to the *stirring* of the soil, to which particularly I wished to draw your attention. Having purchased from your townsmen Messrs. Rapalje & Briggs a No. 2 Nourse & Mason sub-soil plow, the novelty of the tool excited so great an interest that I extended invitations to some twenty practical and amateur farmers to be present at the trial, not one of whom had ever seen the operation of sub-soiling. Having fully examined the nature of the soil, I determined to run the first furrow with the common plow nine inches deep, turning over a fine and mellow loamy soil. This was followed by the sub-soil plow, drawn by four oxen, eight inches deeper, crumbling and rendering permeable and light without bringing to the surface *gravel pan* or other dead and inert matter, but comminuting earths rich in organic materials, that have lain dormant doubtless for ages. Here was the charm! Our friends looked with delighted astonishment — conviction flashed upon the mind — perfectly satisfied of the great and important results that must follow the act, in giving depth for roots to penetrate — in placing a check upon the usual destruction by summer drouth, and the assurance of moisture at those times by capillary attraction, the greater amount of heat and atmospheric influences earlier in the season, with all those chemical effects nature calls to her aid to produce vegetable growth when relieved by the incubus she has been weighed down by.

The land was left as light as a feather bed — indeed, equal to a well trenched garden, the surface being raised some ten or twelve inches above the former level, a stick easily penetrating to the full depth of seventeen inches! Is not this the great and fundamental step towards rejuvinating my poor skinned land?

My farm operations are, for the season, principally experimental, such as ordinary plowing of seven inches and sub-soiling seventeen inches alternate strips, each having the same manures, and seeding to oats, corn, potatoes, &c.; also, top dressing new grass land in sections, with charcoal, domestic poudrette, plaster, stable manure, lime rubbish, guano: besides which, I am planting some 1000 additional fruit trees, &c., &c. The results of these various experiments I hope to detail for the *Farmer* at a future time.

In the draft of the sub-soil plow, we exchanged the oxen for a three horse team, and again to a single pair, which, by the by, were fine ones, and with the exception of hard gravel pan, or plastic clay, two horses worked it without severe fatigue. Three horses abreast or a heavy yoke of oxen, however, make the most desirable team.

Our friends retired with the full conviction of the utility of sub-soiling, and the determination of troubling Messrs. R. & B. for what they may have on hand of that pattern. W. R. Coppock.—*Longsight, Buffalo, June,* 1850.

We thank our correspondent for the excellent example which he has set not only to the farmers in the vicinity of Buffalo, but to the many thousands who will read his valuable communication in this journal. The experiments of one of the most enterprising and skillful horticulturists in the "Queen city of the Lakes" will be more than welcome to our columns.

A HALF DAY IN EAST WAYNE COUNTY.

A few hours of unexpected leisure in the village of Clyde, town of Galen, on the 9th inst., were employed in the following agreeable manner. First, I visited the farm of Joseph Watson, Esq., the President of our County Agricultural Society, adjoining the village. He has at his homestead fifty acres of land, including five acres covered by a cemetery and river. The balance, except an ash swamp reclaimed into a pasture lot, and an adjoining lot of six or eight acres of similar kind this spring put into broom corn, has been raised, mostly by Mr. Watson's personal labors to the highest state of cultivation, so that an accurate account kept proves the proceeds of this little place last year to have been about $900, and two years preceding about $800 each year. This year the yield promises greater than last, owing to that muck swamp now covered with broom corn having been reclaimed, giving promise of extraordinary crops. A good share of the farm has been reclaimed from sunken swamp-holes, by means of numerous ditches and careful cultivation. His ditches, and fences particularly, are the best I have ever seen on any farm, and many of them are peculiar to this farm. Some of the fences in a conical form cover deep open ditches, and many others are moveable and are kept in their position in the most economical and durable manner. His crops embrace the choicest varieties of all kinds; some of his acres are covered with kinds raised in a series of years from a single head of grain picked up two or three years ago at an agricultural exhibition. I need hardly say that Mr. Watson's crops are enormous, and his stock is such as we should expect to find on such a farm, while his fruit trees exhibit not only scientific cultivation, but also *pruning.* His barn and out-houses, mostly erected by Mr. Watson in his leisure hours, combine more homemade economy and convenience than I have ever found in the possession of any one farmer. His horse-power attached to his threshing machine and fanning mill, is so perfect that with one horse it will also turn a circular saw for sawing his wood and making the repairs and improvements to his buildings, a small grist mill which grinds all his corn and coarse grains, a cider mill, and various other conveniences. Truly this is a "gem" of a farm.

I next spent an hour on the farm of Mr. B. H. Streeter, one mile east of the village. He has a noble farm of three hundred and twenty acres, which he purchased not a year ago; but he already exhibits abundant evidence that not many years hence it will be one of the best farms in this or any other county. A barn is on the place, erected at a cost of $1500, which combines more excellence and convenience than I have ever met with. Mr. Streeter has already a variety of full blooded stock from the best herds of our State, and among which I noticed with high gratification a pair of twin three years old steers of native breed, so perfectly alike in size, color, and every mark, that the owner himself can only tell them apart by the slightest possible turning in of the broad spreading horns of one of them. They are of bright red, except about one foot of the tail of each being white. The combined weight last winter was over 3,200 lbs., and they are considerably heavier now, although neither is 10 lbs. heavier than the other. I was much pleased to learn that Mr. S. regards with favor the proposal to take them to England to the World's Fair next year, for I am confident our whole country can not produce a handsomer specimen of our common stock.

I spent the next hour or two on another "gem" of a farm of fifty acres, owned by Mr. Mathew Mackie, one mile north of Clyde, and I will only take the time needed to refer to the trees, fruits, and flowers, on Mr. M.'s beautiful place. He has a few of the best trained evergreens in his front yard I have ever seen, and he has among them the choicest new kinds also. His fruit trees numbering thousands, label an assortment including those new and rare seldom to be found in our established nurseries, and all in the highest pitch of cultivation. The same may be said with reference to his multitude of roses and other flowers, some of which are very rare, among which I noticed the finest standard by far, of the Chromatella, or Cloth of Gold rose, I have ever seen in any collection. His vegetables and smaller fruits, such as strawberries, raspberries, &c., showed the same extensive assortment and extraordinary cultivation. And what interested me particularly, was Mr. Mackie's numerous and careful *experiments* now in progress. His assortment is now so large that he can hardly avoid propagating considerably for the benefit of his neighbors and others. I have thought that the western part of Wayne county could exhibit rare collections of fruits, flowers, &c.; but I much doubt if any hard working farmer in this or any other county, can exhibit so much skill, judgment, and taste, around their domicil, as does Mr. Mackie.

On my return I saw a very fine hedge started, composed of the common thorn of the country.—Time did not permit me to visit the splendid farm of Mr. Briggs, five miles north, which Galen intends shall prove to be the premium farm of Wayne county. The initiatory steps have been taken by the spirited citizens of Galen, towards establishing an agricultural school at Clyde. Mr. Watson has made a very liberal offer of his farm in fee simple, free, excepting a small yearly annuity to himself and wife during their life, and a committee has been appointed to carry the matter forward.

Now, Messrs. Editors, after such a development of some of the hidden resources of the retired town of Galen in the quiet county of Wayne, can you wonder that this very town has obtained your premium of the $30 Agricultural Library by the largest list of subscribers (some 389) to the Genesee Farmer? This fact has suggested to me my apology for the length of this communication. R. G. P.—*Palmyra, N. Y., July*, 1850.

SALT AS A MANURE—AGAIN.

The Press, no doubt, is the greatest blessing human ingenuity has conferred upon our race. Man is, or ought to be a social being, and through the medium of your cheap and useful publication, Messrs. Editors, we can quickly convey to each other our ideas and sentiments. In the January number of this year, I gave my views, which are original, on *Salt, &c.* In the March number I am called upon to give a little more light on the subject. I think friend Jewett does not read me correct, as he says I commenced by "putting on a small quantity of manure." I had not manured the land for four years, and then but very little. Again, I am called upon in the April number, by R. H. J. of Lockport, to give some further information on this subject. This friend has also mistaken the reading of the second article. I meant a peck of soaked corn over a two or three acre field, not a peck of arsenic. I am not a chemist; but, like R. H. J., wanted to know what effect mother earth would have on arsenic. I inquired of Professor Dewey, who informed me that the earth would not destroy its poisonous qualities.

Since I published my views on salt and insects, I have met with two paragraphs which coincide with my views to a tittle. The first is the opinion of Professor Agassiz, on the multitudes of insects that infest the earth:

> Insect Life.—Professor Agassiz says, more than a life time would be necessary to enumerate the various species of insects, and describe their appearance. Meiger, a German, collected and described 600 species of flies, which he collected in a district of ten miles circumference. There have been collected in Europe 27,000 species of insects preying on wheat. In Berlin two professors are engaged in collecting, observing, and describing insects and their habits, and already they have published five large volumes upon the insects which attack forest trees.

Only think of that, brother farmers, 27,000 different species of insects preying on wheat. This is a startling fact, and calls for the consideration of the best means for their destruction.

The following, on the use of *salt*, is from Bell's Messenger, (a London paper,) of May last:

> The application of common salt as a manure produces this effect, in one mode, which is evidently double advantageous to the farmer. We allude to the destruction of insects, and the conversion of the substances of which they are composed into the food of vegetation. It is needless to enlarge upon the countless tribes of insects of all kinds, which tenant the farmers' lands, and prey upon their crops. It will be more useful on this occasion to direct our attention to the powerful action of common salt in effecting their destruction. In producing some fresh evidence of this fact, it will be well to remember that this important use of salt is not a recent discovery, for it is now sixteen years since we find inserted in a work on the uses of salt in agriculture, (Johnson on Salt,) reports from different counties, amply proving its powerful effect in the destruction, among other insects, of slugs and worms. There were, for instance, those of Mr. Jacob Busk, of Ponsbourn Park, in Hertfordshire. His valuable experiments extended over some hundreds of acres of wheat. To use his own words—"In every situation, and at every time, the effect appeared equally beneficial."—The quantity per acre—"about four or five bushels, sown

out of a common seed shuttle." The period—"in the evening." The effect—"in the morning each throw may be distinguished by the quantity of slime and number of dead slugs lying on the ground. In some fields it has certainly been the means of preventing the destruction of the whole crop." In Oxfordshire again, "six bushels of salt per acre were applied by hand, in April, to a field of oats attacked by the slugs and worms, on the farm of Mr. JOHN SLATTER, of Draycote, near Oxford. The crop was completely saved by this application, although an adjoining field, not salted, was completely destroyed by this sort of vermin." It is ascertained that the salt readily penetrates sufficiently into the soil to destroy many of the insects in their cells. "Common salt," Professor WAY observed some time since, "may be advantageously employed as a manure directly to the soil or it may be mixed with the dung heap. In the latter application of it, it must be borne in mind that, in large quantities, it is capable of suspending fermentation altogether, so that if the farmer wants his dung to heat well, he must be careful in the use of salt; but, in small quantity, during the fermentation, or in full supply to the manure a short time before its application to the land, salt is likely to be of great service. Not only does it render the ammoniacal compounds less volatile, but it is capable of destroying the germs of both vegetable and animal life, for there is little doubt that we too often introduce into the soil, with the manure, the weeds which choke and the insects which devour our crops. Salt will prevent all seeds from germinating when they are sufficiently saturated with a solution of it. No fear, however, need be entertained of its effect when the manure has been properly mixed with the soil; it is then too diluted to interfere with the germination of the turnep seed."

I am satisfied of the benefit of salt, and strongly recommend it to destroy insects; and I also believe in its fertilizing qualities. On fallow it should be used. I intend to try a single acre with three barrels. If I am spared, I intend, in a future number, to give some farther views on the efficacy of salt. The busy season coming on, at present forbids it. JOHN PARK.—*Gates, 7th mo.*, 1850.

HAVING observed in the Rochester American, last year, a statement, by JOHN PARK of Gates, of the favorable result of using salt on his land for wheat, and being favorably impressed by the beautiful brightness of the straw as well as the plumpness of the grain raised by him, I was induced to apply salt to a part of a field, on which I intended to sow wheat. The result is, you can discern to a shade where it was applied, by the superior brightness of the straw, as well as the larger sized heads, over the part of the field not salted. J. CHAPPELL.—*New York Mills, Rochester, July* 18, 1850.

S. W.'S NOTES FOR THE MONTH.

PAINE'S HYDRO-ELECTRIC LIGHT.—Throw a pail of water on the glowing coals discharged from a cupola furnace, and a dull green flame will flash up from the decomposed water. I trust PAINE can do no more than this towards illuminating the world with the elements of water alone. From his own tardy admission, it now appears that his *bright light* was only made by the aid of carbonaceous matter in the form of *spirits of turpentine*. All those who believe in God's provident wisdom, may now return to, if they have been jostled from, their faith, and believe that he has not placed so much carbonaceous matter in this world of ours, to remain unused,—fossil coal is still to be made a necessary article of fuel—the great cetaceous leviathan is still to give employment to our whaling fleets—the southron is to continue to convert his long leaved pine into spirits of turpentine—and the maker of alcohol may yet abstract from beverage, for the benefit of flame and Doctor Townsend's Sarsaparilla, as much corn whiskey as he pleases.

THE WEATHER AND THE CROPS.—Never, perhaps, in our rural annals, did vegetation ever progress faster than it has in Seneca county, since the 3d of June last. It would seem that heat and moisture has done the utmost to produce the greatest vegetable growth in a given time. It is now the 16th of July. A heavy crop of clover has already been secured. Our farmers are now cutting wheat; and all agree that this cereal will be an average crop in spite of the worm; Mediterranean wheat has invariably escaped the insect, and much of the early sowed bald, on warm and well tilled land, has got ahead of the fly, although much wheat in low places has been injured by it, and in some cases entirely destroyed. Indian corn, that great, unfailing *indigene* of our country, was hardly out of the ground on the 3d of June; now it is forming its green ears, in the full promise of early, luxuriant maturity.

TILE AND PIPE UNDER-DRAINING.—The advantage of under-draining, in enabling the wheat plant to outstrip its enemies, was never more apparent than it is this season; as every crop about to be taken from well drained fields, will suffer little diminution from either winter-killing or the *C. tritici;* while the weak rooted plants of wet places, give a stinted yield that will hardly remunerate the farmer for the seed and culture. B. F. WHARTENBY makes, at Waterloo, about 40,000,000 tile and pipes monthly, with the machine imported by President DELAFIELD. For the benefit of distant farmers, I will here say, that machines from the same pattern, with improvements, are about to be made here at PURDIE'S foundry.

THE GREAT INCREASE OF OUR AGRICULTURAL EXPORTS.—The export of our cotton has about doubled in the last eight years. In 1842 the total export of Indian corn from the United States to Great Britain, amounted only to 123,665 bushels; whereas, our export of the same article last year, to that kingdom alone, amounted to above twelve millions of bushels. Our export of provisions, including hams, lard, cheese, butter, &c., has increased in a much greater ratio. In 1842 our export of hams to England was only 160,274 lbs.; in 1849 the export of that article to Great Britain alone, was rising of fifty-three millions of pounds. British agriculture has been so long pampered and enervated by corn laws and protective duties, that the present competition from without causes loud complaint from both landlord and tenant. John Bull can beat Brother Jonathan at grumbling. Jonathan, instead of employing his time entirely in such an expedient for his bad luck, goes to work manfully with renewed energy, employs labor-saving tools and machinery, instead of supernumerary hands, sells off a part of his stud, and reduces his farm expenses. But John does nothing like this; he looks to a new ministry, and with it a return of that bounty on his products, or rather a tax on his neighbors, which he considers as his indefeasible right.

HOW TO CURE SICK PEACH TREES.—Dig away the soil from the tree, remove all excresences, dead bark, &c., near the root, and destroy the worms; then fill the trench around the tree with water well saturated with hen dung or other nitrogenous manure; the liquid should be as warm as the atmosphere. Two or three applications of this kind in a week, will bring a healthy appearance to the foliage, almost immediately. *Waterloo, N. Y., July,* 1850.

PIGEON WEED, OR RED ROOT.

Messrs. Editors :—I improve a moment to inquire of you what can be done with the destructive and noxious weed called the "Pigeon Weed," which is running us out in this section of the country. Some crops of our wheat are almost entirely run out by the weed. Some are on the eve of consideration, while others have come to the conclusion that they can not raise wheat unless there can be some remedy resorted to, which we are as yet unaware of. If the Editors of the Farmer can give us any information in regard to the above inquiry, it will be thankfully received through the Farmer. Chas. W. Hobart.—*Yatesville, July*, 1850.

An excellent essay on Pigeon Weed, or Red Root, was written by Chas. M. Stark of Yates county, and published in the N. Y. State Transactions for 1846. It was published in the February number of the Farmer of 1848. We think we could not better answer our correspondent than by copying a part of this essay :

"The first thing to be considered, is the fact that red root is a biennial plant that will not germinate to any great extent in the spring, it being its nature to come up in autumn, and can not therefore be eradicated without fall plowing. I would recommend the following practice : The first crop, wheat ; the ground to be plowed but once, at least eight inches deep, which should be done in July, after which it should be thoroughly pulverized with a cultivator, to the depth of four inches. My reason for preparing the ground in this way, is this : the most of our land is seeded down after wheat, and of course receives its red root seeding at the same time ; consequently a very large proportion of the seed lies near the surface. If this be turned under to the depth of eight inches, but a very small portion will germinate, and the wheat will be to a certain extent free from its pernicious presence ; if plowed twice, the seeds are mostly thrown back to the surface, which is admirably adapted to the increase of the pigeon weed, while once plowing is found to be at least as good, and I believe decidedly better for the wheat. If it be possible, the red root should be pulled out of the wheat ; but if the quantity be too great for this purpose, a more protracted effort must be made to destroy it.

"The wheat stubble should be plowed in the fall, just as deep as it was for the wheat, and well harrowed. In the spring the ground may be plowed, (as shallow as possible ;) but I deem it decidedly better to use the large cultivator with steel teeth, as not one spear can escape if it is thoroughly cultivated, and the ground will be in better order for the crop, which may be barley, oats, or spring wheat ; but in my opinion, should be peas. The ground should be again plowed and harrowed in the fall. In the spring let the operation with the cultivator be repeated, and the ground planted to corn. If this be placed three feet apart each way, and tilled with a cultivator, no weed of any kind need be grown among it. This crop should be planted as early as the season will admit, to give time for another plowing in the fall, when the ground should be harrowed as before. In the spring the same thorough use of the cultivator is necessary, and the land may be sown to barley, peas, or oats, which must be decided by the crop raised the second year. If peas, then barley or oats may follow ; but in no case should the same crop be grown in the rotation. I think it the better way to sow flax for the seed, because I consider it as profitable as any other summer crop ; and as the ground should now be seeded with timothy or clover, I believe flax is the best summer crop that grass seed can be sown with. Flax should be sown early ; twelve quarts to the acre. I think this rotation must destroy the seed in the ground, as all that germinates in three successive years dies, without the possibility of leaving seed. If any yet remains in the earth, the quantity must be so small that it may be easily pulled. We might now sing a requiem over departed pigeon weed, and read the burial survice over red root, were it not that, Phœnix like, there is vitality in its very ashes. Though death and decay may surround it, yet in its stone tenement it is safe, and with patience it awaits the day of its resurrection, which will as surely come as the manure is removed from the barn-yard to the field.

"The destruction of the seeds carried to the barn with the wheat, is the most difficult part of the subject ; and in order to effect it, no pigeon weed must go into the barn ; for if it be carried there, it will be taken back again, and no system of rotation or anything else will ever subdue it. I feel very diffident about advising any farmer to burn his straw ; but in this case I think the benefit derived from the destruction of the seeds of this weed, would be at least an equivalent for the straw destroyed, (or rather decomposed ; for nothing *can* be destroyed.) It is the decision of agricultural chemists, that a large proportion of wheat straw is taken from the atmosphere, and that every particle derived from the soil may be found in its ashes. As this has been proved by actual experiment, there can be no real loss by such a conflagration. The proper method is, to stack the wheat in the field, and as it is threshed burn the straw on as small a space as possible, as all the heat that can be obtained from it is necessary to destroy the vitality of the seeds of the pigeon weed. I believe it would be profitable in many cases, to mow the stubble and burn this also. The ashes should be gathered up and housed until they can be used in the compost heap, or otherwise returned to the soil. It may be thought that this system is too great a tax upon the land, there being no return made in manure ; but this is a groundless objection ; for any farmer, following the rotation, may apply artificial or barn-yard manure to either or all the crops raised, as his judgment may dictate. The soil will receive the manure made from the peas, oats, barley, and corn ; and clover seed may be sown with either of these crops, except the last, and the clover plowed under in the fall, (a practice, by the bye, I would by no means recommend.)

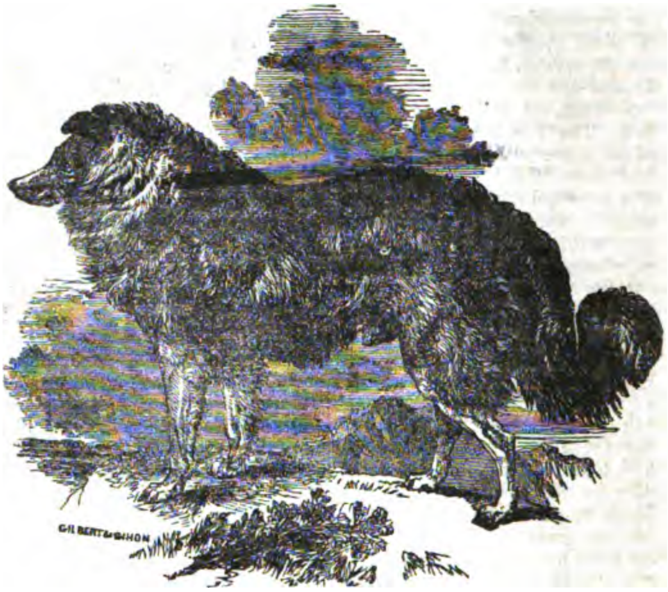
"The manure that has already accumulated in the barn-yard should be drawn out upon a sward, and the ground planted to corn, with the following rotation : 1st, corn ; 2d, peas, barley, or oats ; 3d, flax ; 4th, wheat. The pigeon weed should be pulled from the wheat, if possible ; if not, the first rotation may be applied after the ground has lain two years in clover.

"It should be borne in mind, that the presence of pigeon weed is a positive tax upon the farmer, and that every dollar successfully expended in its removal is to him an absolute gain."

In speaking of his efforts to destroy pigeon weed, Carles Hanford of Genesee county, writes — "I should be well paid for my trouble, if all farmers would either pull their red root at the time of blowing, or burn all they pull up, instead of placing it in the wagon-track of the road. When muddy, the the seed and mud cling to the wheels, shake off in the barn-yard, get with the manure, and then into the wheat-fields. It requires more labor to rid a farm of this weed than of Canada thistles."

THE SHEPHERD'S DOG, &c.

Years have passed over our head since in youthful glee we wandered among green pastures, admiring the flocks of sheep quietly feeding on the gentle slope, watching the gambols of the playful lambs, and the faithful dog obeying even the slightest motion of his master, and gently turning the flock when disposed to wander. It is "long, long ago," that under the shade of some white-thorn hedge or ancient oak, we listened to the shepherd's wonderful story of the sagacity of his favorite dog, — more pleasing than fairy tale, or even shepherd's lute. And yet these scenes have left their impress. The shepherd, with his dog quietly dozing by his side, and the flock peacefully grazing or listlessly reposing on the green, is to us the brightest, most beautiful picture of rural life. It is a picture of peace, and contentment, and affection. When the interest of the flock requires it, the shepherd makes known his wishes, and the dog is ever delighted to obey — ever ready to do his work with zeal and fidelity, and when done, lays himself down with evident and well expressed satisfaction, at his master's feet. The sheep obey the dog almost as readily as the dog obeys the shepherd, and seem to look to him as a protector. The shepherd loves his dog and his sheep, and the dog is equally attached to his master and his flock. The Almighty has chosen this beautiful scene to illustrate his love for his creatures, and his care over them. Modern customs and modern improvements may, in some respects, have changed the shepherd's life; but in our imagination, we must ever hold this picture of our early days as the POETRY of rural life.



THE SCOTCH SHEEP-DOG.

We might tell many facts illustrating the more than human sagacity of the shepherd's dog, but one or two will suffice, and we think will not fail to be interesting:

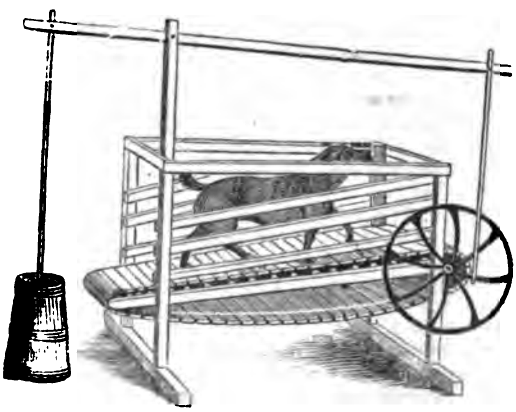
Mr. James Hogg, the Ettrick Shepherd, living in his early days among the sheep and their quadruped attendants, and an accurate observer of nature, as well as an exquisite poet, gives some anecdotes of the colley, (the Highland term for sheep dog,) with which the reader will not be displeased. "My dog, Sirrah," says he, in a letter to the Editor of Blackwood's Edinburgh Magazine, "was, beyond all comparison, the best dog I ever saw. He had a somewhat surly and unsocial temper, disdaining all flattery, and refusing to be caressed; but his attention to my commands and interest will never again be equalled by any of the canine race. When I first saw him a drover was leading him with a rope. He was both lean and hungry, and far from being a beautiful animal; for he was almost black, and had a grim face, striped with dark brown. I thought I perceived a sort of sullen intelligence in his countenance, notwithstanding his dejected and forlorn appearance, and I bought him. He was scarcely a year old, and knew so little of herding that he had never turned a sheep in his life; but, as soon as he discovered it was his duty to do so, and that it obliged me, I can never forget with what anxiety and eagerness he learned his different evolutions, and when I once made him understand a direction he never forgot or mistook it."

On one night, a large flock of lambs that were under the Ettrick Shepherd's care, frightened by something, scampered away in three different directions across the hills, in spite of all he could do to keep them together. "Sirrah," said the shepherd, "they 're a' awa!"

It was too dark for the dog and his master to see each other at any considerable distance, but Sirrah understood him, and set off after the fugitives. The night passed on, and Hogg and his assistant traversed every neighboring hill in anxious but fruitless search for the lambs; but he could hear nothing of them nor of the dog, and he was returning to his master with the doleful intelligence that he had lost all his lambs. "On our way home, however," says he, "we discovered a lot of lambs at the bottom of a deep ravine called the Flesh Cleuch, and the indefatigable Sirrah standing in front of them, looking round for some relief, but still true to his charge. We concluded that it was one of the divisions which Sirrah had been unable to manage, until he came to that commanding situation. But what was our astonishment when we discovered that not one lamb of the flock was missing! How he had got all the divisions collected in the dark, is beyond my comprehension. The charge was left entirely to himself from midnight until the rising sun; and if all the shepherds in the forest had been there to have assisted him, they could not have effected it with greater promptitude. All that I can say is, that I never felt so grateful to any creature under the sun as I did to my honest Sirrah that morning."

The New York State Agricultural Society offer a premium on the best well trained dog, at the next State Fair, and our reference to the subject now will be in season.

Mr. A. L. Bingham of Vermont, passed through this city with a drove of sheep last winter, and had a fine dog with him as an assistant, who [the dog] honored us with a call. We certainly appreciate the compliment, as we have a great respect for the useful portion of the race. But we have no regard for the hosts of lazy, worthless curs, that infest our cities and villages, eating up food that many half-starved children would consider a luxury, and making the night hideous with their yelping. We have a perfect hatred of all such. We have no particular love, either, for those little watery-eyed fellows that seem to be so peculiarly the favorites of some ladies. We know of nothing more disgusting than to see a lady carrying in her arms a little cur, wiping its eyes with her handkerchief, or purchasing cake from the stores and feeding it. Better had she take care of some poor woman's child, if she must have a pet, and give her pennies to brighten the eye and gladden the heart of the first bare-footed, disconsolate looking child she might meet in the street. Or, indeed, if the pet must be something other than human, why not take a nice little grunter of a week or so old?—what could make a prettier pet to be led by a riband or carried in a lady's arms?



We are glad to learn that Horace L. Embry of Albany, has devised a plan for giving useful employment to dogs, and of making many now useless of some advantage on the farm or the dairy. It consists of a dog-power for churning, as seen in the above engraving. This is constructed on the endless chain principle, with India rubber bands, instead of links, and is said to work admirably—some fifty having already been sold and tested this season. The manufacturer states that it is easily operated by a dog, sheep, or goat, and can be applied to any size or kind of churn. Attached to a Thermometer Compressing Churn, it makes a very complete and perfect churning apparatus. The power can be instantly applied to any size of the ordinary dash churn.

* * *

GAME FOWLS.

Messrs. Editors:—I have been much pleased with your remarks on fowls; but I have a kind that I think you have never described. They [a pair] were sent to me by a brother in New Jersey, some two years ago, as Game fowls. I didn't prize them much at first, as I supposed the Game fowls were principally valued for their fighting qualities; and as I love peace, and can not bear to see suffering, even in the meanest creature, I found it difficult to overcome my prejudice against what I had supposed to be the bullies of the poultry yard. But my prejudice is somewhat giving way. They are a very neat, pretty fowl, and not half so quarrelsome as I had supposed them to be. They show a disposition to fight when quite small chickens; but with a little care I manage them so that they seldom injure each other. The hens lay about as many eggs as our common breed, and they are the best mothers I ever saw. The old hen will defy man or beast that attempts to interfere with her brood. Some of my neighbors think my fowls are too peaceable for Game. What is your opinion? J. W.—*Erie Co., July*, 1850.

We give at the head of this article a portrait of a Game cock, from Browne's American Poultry Yard, which our correspondent can compare with his fowls. We have no doubt, from J. W.'s description, that he has the Game fowls—perhaps not in their purity,—but they show strong characteristics of the breed.

Horticultural Department.

EDITED BY P. BARRY.

STRAWBERRIES.

In the vicinity of all our large towns, at least, the cultivation of the strawberry is destined to be a most important branch of horticulture. Around this city, the crop of the past season has been immense. The number of varieties grown, and grown in perfection, has never been equalled here before, and perhaps never excelled anywhere. At our June exhibition, upwards of twenty-five varieties were exhibited, including all the best known sorts.

Burr's New Pine maintains its supremacy in flavor, and is beside a most abundant bearer — indeed, we consider it, taking all together, the best strawberry.

The *Swainstone Seedling* is equal in flavor, and quite as large, but is a poor bearer, and can not be recommended for general cultivation.

Burr's Columbus and *Rival Hudson* are both highly productive and fair sized varieties, but somewhat acid. On this account, however, they are not at all objectional to many people.

Burr's Scarlet Melting proves a most prolific bearer. We saw a bed of this variety in Bissell & Hooker's grounds, surpassing in fruitfulness any we have seen this season; but the fruit is so tender that it can not be cultivated for market.

Burr's Old Seedling is a good, productive, staminate sort.

Hovey's Seedling holds its place as the largest, and the crops here this season, in all the gardens, have been quite satisfactory—much better than they have ever been before. The flavor is but middling.

Boston Pine is exceedingly prolific, and of fine size, but flavor poor.

Black Prince has yielded most abundant crops of large, fine looking fruit, but in all cases exceedingly insipid. We see it stated to be the same thing at Cincinnati. At the Buffalo exhibition we found the specimens shown to be no better. We have heretofore found it much better; but it certainly can not be relied upon in this respect.

The *Crimson Cone* is a most abundant bearer every year here, and in appearance one of the most beautiful of all—of a regular conical, pine apple shape, and rich, shining, crimson color; distinguishable at a glance, among all other sorts. The flavor is medium —about the same as the *Large Early Scarlet*. We consider this a valuable variety.

British Queen is a most superb fruit, and the plant extremely rich and luxuriant in foliage; but the yield is quite inconsiderable, and it deserves a place only in the amateur's collection.

Jenny's Seedling is very large, and the plant of a vigorous and luxuriant habit. We have not seen enough of it to speak decidedly of its bearing qualities, but should think it will produce very moderately, and the flavor is but medium, or hardly that.

Princess Alice Maude has produced a good crop of large, fine looking, but very insipid and worthless fruit.

Deptford Pine the same.

Prolific Hautbois is a large, conical, pale colored, sweet and musky fruit that many people like, and an immense bearer. The plant is quite distinct in its appearance, and when in blossom, is highly ornamental. We consider that its distinct peculiarities of growth, flavor, &c., added to its productiveness, render it well worthy of cultivation.

The *Large Early Scarlet* and the *Red and White Monthly Alpines* are unfailing good bearers, and the latter especially fine flavored. There is no other variety we would recommend in preference to the *Large Early Scarlet*, as a staminate to fertilize the pistillate varieties, as it not only possesses an abundance of pollen, but is itself an excellent fruit.

The *Bishop's Orange* is also a good bearer, and a good fruit.

We give these brief notes, made from a careful examination of the fruits in various plantations. The attention that has been given the strawberry culture here for a few years past, by several zealous and well informed cultivators, has not only awakened the community to the importance of the subject, but has really given them such information—such examples — as can not fail to convince them that to raise strawberries with success, requires but the plainest and simplest course of management. There is no difficulty now in selecting varieties that, with good soil and good culture, will yield an ample return.

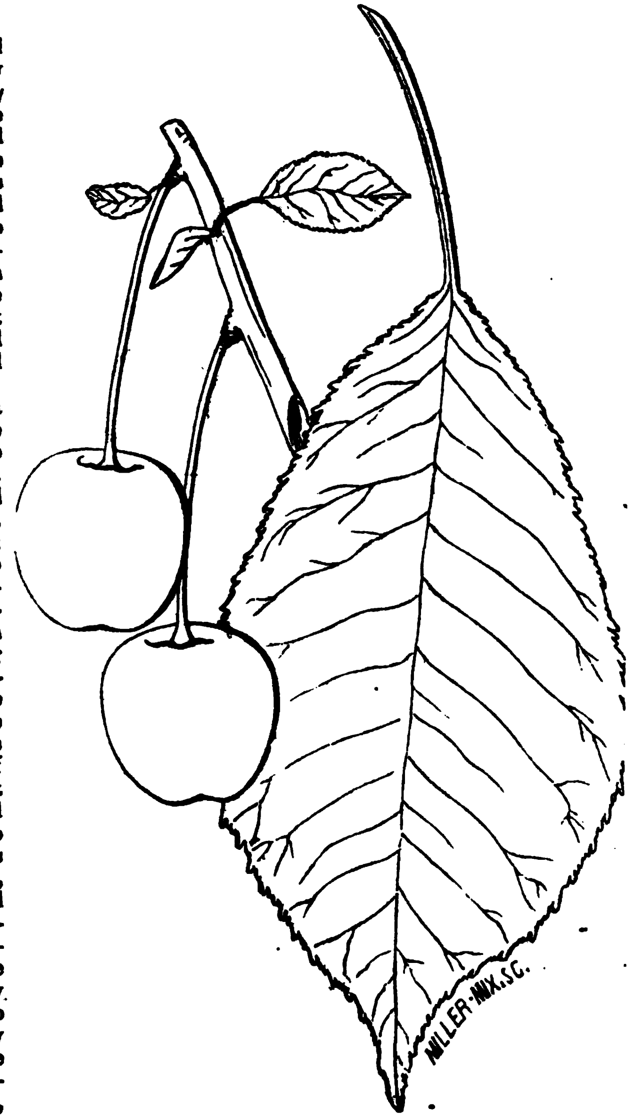
Good soil is a soil made deep by trenching or plowing. It should be at least a foot and a half deep, and so enriched with manures as to be in as good condition as a vegetable garden ought to be. *Good culture* consists in keeping the plants free from weeds and runners, and the ground mellow about the plants. *Showery weather* during this and next month, will be a good time for planting. The best way is in rows three feet apart, and the plants a foot apart in the rows. The preceding notes will be some guide to the inexperienced, in making selections. For a small collection, giving a reasonable variety, we can not do wrong, we think, in pointing out the following: *Staminates* — Large Early Scarlet, Boston Pine, Burr's Seedling, Swainstone Seedling. *Pistillates* — Burr's New Pine, Hovey's Seedling, Crimson Cone, Rival Hudson, Black Prince. And in addition to these, the *Prolific Hautbois* and the *Alpines*; both having perfect flowers, and not mixing with other varieties. For a very small collection, the two first of each staminate and pistillate. The *Alpines* we would cultivate, if none else, on account of their bearing so long and possessing such delicious flavor. But, few will agree with us, on account of their small size.

A correspondent writes us: "I have made up my mind this season, from my own observation and experience, that *Burr's New Pine Early Scarlet*, and *Hovey's Seedling*, are the three varieties for those who wish to cultivate but three sorts."

DUKE AND MORELLO CHERRIES.

THESE classes of cherries, as a general thing, are not cultivated in this country to any considerable extent The *May Duke* and *Belle de Choisy* are about the only sorts that seem to be considered worthy of cultivation, judging from the demand. The taste of our planters seems to run almost exclusively for rapid growers and large, sweet fruit. A large portion of the cherry trees that are planted through the country, are placed in door-yards, where they are made to serve the double purpose of shade and fruit trees. For such purposes, the rapid growing sorts, such as the *Hearts* and *Bigarreaus*, are alone suitable.

We apprehend, however, that in a short time these hardy sorts will receive much more attention, and be planted to a much greater extent than at present. Throughout nearly all the western and southwestern States, the free growers, or Heart cherries, are quite short lived; they are too delicate — their wood is too soft to endure the vicissitudes of the climate and seasons. So it is in the northern portions of this State, the eastern States, and Canada. The free growing cherries are too tender; and the consequence is, that in traveling through these regions, you will find nothing but the common *red*, or *pie* cherry; which is very late, and only fit for cooking. If we ask why the fine varieties are not cultivated, we are told that they will not endure the climate — Mr. So-and-so has tried them, without success. It is true that this *pie* cherry, as it is called, will bear the most abundant crops in all seasons, where such as the *Black Tartarian* or *Elton* could not survive a single season. But we must tell the people of these localities, that there are really fine sorts, to our taste superior even to the *Black Tartarian*, equally as hardy as the common red. Of such are the *May Duke*, *Belle de Choisy*, the *Carnation*, the *Belle Magnifique*, the *Morello*, and many others we might name. For small garden trees, these slow growers are much better adapted than the others — much easier managed; they are naturally more compact, may be planted close, and are easily protected from birds or insects. The two varieties noticed below, of recent introduction, may be added to the finest of these hardy, slow growing sorts.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REINE HORTENSE.

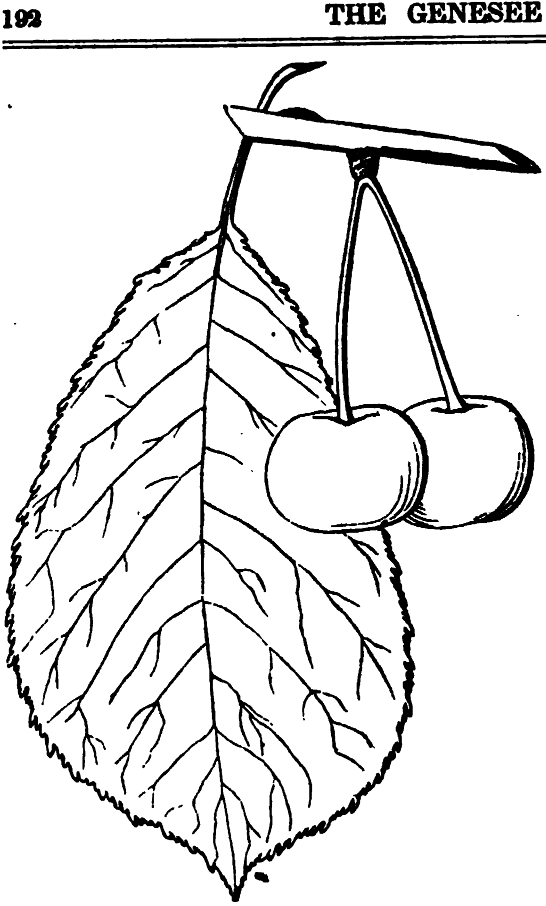
THE REINE HORTENSE CHERRY.

SYNONYMS — Monstreuse de Bavay, Lemercier, Belle de Bavay, &c.

This is an excellent French cherry of the Duke class, imported by us some three or four years ago. Mr. BAVAY says it was found at his old residence at Vilvorde, in Belgium, and introduced by him in 1826, under the name of "*Monstreuse de Bavay.*" The "*Bon Jardinier*" states that it was introduced in 1838, as *Reine Hortense*, by Mr. LA ROSE, a nurseryman of Neuilly, in France. The *Lemercier*, which we have imported, has also proved identical with it. The fruit is large, long, heart shaped, and bright red at maturity. Stalk an inch and a half to two inches long, rather slender. Flesh tender, juicy, sweet, and rich. The tree is a vigorous and handsome grower of the kind, resembling the *May Duke*, and it bears early. It is one of the very best for dwarfs or pyramids, that we know of, in the whole list cultivated. It appears to us that, if left entirely to themselves, they would make handsome pyramids, if worked on the mahaleb stock. Mr. RIVERS, and indeed all who have tested it, pronounce it a *first rate variety*. We recommend it especially to those who are desirous of procuring small, garden cherry trees, that are easily managed.

DONNA MARIA CHERRY.

This is another French variety of recent introduction. Fruit medium size, round, flattened at both ends, light red until mature, when it is quite dark. Flesh soft, juicy, and acid; fit only for confectionary



DONNA MARIA.

purposes and preserving. Ripe middle of July. The tree is similar in growth and wood to the Morello—makes a nice prolific bush on the Mahaleb stock. We should not recommend it unless for a pretty large collection of this class of fruits, as it is inferior to several others ripening at the same time.

THE FIRE BLIGHT IN PEAR, APPLE, AND QUINCE.

A friend has favored us with a copy of the "Cayuga New Era," in which we find a communication stating that "it has been ascertained to a certainty, by a close observation and actual discovery, that what is usually termed the '*fire blight*' in these kind of trees, is caused by a very small white worm, about a quarter of an inch in length and not larger than a cambric needle. This, at least, is about the size of their growth at the present time. It commences at the tip ends of the branches and proceeds, generally, on one side of them only, between the outer bark and the wood, till, in the course of the season, it passes quite through the whole extent of the tree into the earth. The smaller branches soon wither and die, and the larger ones and the body of the tree become so despoiled of their bark as to fail sooner or later by decay, from exposure of the wood to the weather. The only effectual remedy is to cut off the tips of the branches as soon as any dry leaves appear."

We can only say that we have strong doubts about the correctness of the discovery. The blight seldom affects more than the ends of apple and quince shoots.

DR. KIRTLAND'S CHERRIES.—CLEVELAND.

During a recent visit to Cleveland, we had the pleasure of spending a few hours with the Doctor and Mr. Elliott, among the seedling cherries. It was on the 4th of July, and many were out of season; still, we found much that was new and interesting. To examine all the seedling cherries which the Doctor has already in bearing, would require a whole day. We observed *Kirtland's May* and *Rockport Biggareau* very fine; No. 10, a variety not yet named, rather better than any — a superb and delicious fruit; several black seedlings, from their season of maturity, texture, and flavor, promise to be valuable. The Doctor's grounds show that he is prosecuting his favorite pursuits with increased ardor; they are greatly improved since we last visited them, three years ago. We noted a great number of interesting and important experiments going forward, in hybridizing, manuring, &c., the results of which can not fail to subserve the interests of fruit culture in that region and elsewhere.

We have to thank Mr. Elliott for his company and kind attention. We found him in his new house, (for the design of which he was awarded the premium of our State Society,) his office filled with cherries, of which he was making notes and comparisons that we shall one day hear from, no doubt.

Cleveland is a charming city. In tasteful and beautiful dwellings and gardens, she eclipses any city of the same size we know of. The Horticultural Society holds weekly exhibitions during all the fruit and flower season, and is quite well attended and doing great good. No premiums are awarded, and therefore they create no jealousy, as among certain small hearted people elsewhere. We suggest this mode to young societies with small means. Dispense *totally* with premiums: they are only "bones of contention."

We forgot to add, in speaking of Dr. Kirtland's cherries, that we have had the *Cleveland Biggareau* and *Rockport* bear here, and they fully meet our expectations. No. 10 has also borne, and is by far the best cherry. All who have seen it here or at Cleveland, pronounce it one of the best, if not *the best* of all.

CHERRIES.

The cherry crop in this vicinity has been remarkably abundant. We have noticed a remarkable partiality among people generally, for black cherries. The dealers say that they can sell a bushell of *Black Tartarians* at two shillings per quart, before they could sell a quart of such as *Belle de Choisey*, or *Downer's*, or any other light cherry, at six pence. The bulk of our city people know so little about cherries, that they imagine all *red* cherries to be unripe and sour.

Burr's Seedling Cherry.—We are indebted to Zera Burr, Esq., of Perrinton, for fine specimens of this variety, on the branch — both beautiful and excellent. We have had it in bearing on our own grounds, and it even exceeds our expectations. It is not surpassed in all fine qualities of growth, bearing, and delicacy of flavor, by any of the light colored, tender cherries. It is truly an acquisition. Mr. Burr exhibited an early black cherry, that promises well.

HORTICULTURAL EXHIBITIONS.

The Society of the Genesee Valley held its first exhibition of the season on the 26th of June. Strawberries and roses were the great leading articles that absorbed all attention. The collections of strawberries comprised over twenty-five varieties, all well grown and fine of the sorts. We have never seen an exhibition of the kind to equal it. In roses the exhibition was equally fine—over two hundred varieties were shown, many rare and new, and including about fifty varieties of the Hybrid Perpetuals. Beside the roses, there was a fair display of other flowers of the season, boquets, &c., making in all a very pretty exhibition, highly creditable to those at least who took a part in it.

BUFFALO HORTICULTURAL SOCIETY.

This Society held its first exhibition of the season at McArthur's Garden, on the 2d of July, **Lewis Eaton**, Esq., President. We spent an hour in the room, and was delighted as well with the active and persevering spirit of the officers and a few members of the Society, as by the display of articles on the tables. There was a very creditable display of strawberries and flowers, arranged in the best taste. Mr. **Tyler** and Mr. **Westfall**, florists, contributed largely to the interest of the show, with their collections of fine pot plants. Mr. **Westfall** had some charming spotted seedling calceolaries, the greatest novelty in the room.

The ladies had so intermingled the dishes of strawberries with the boquets, for the purpose of effect, that we found it difficult to make such note of them as we wished. On such occasions the fruits should always be arranged by themselves, to facilitate that examination and comparison which it is the object of the Society to afford.

ALBANY AND RENSSELAER HORT. SOCIETY.

This Society has already held three exhibitions this season—the first, June 18; the second, June 27; and the third, July 10. We have not seen a report of the first, but the other two have been kindly sent us by B. P. **Johnson**, Esq.

At the meeting of the 25th June there was a fine show of strawberries; the report says it embraced "nearly every variety considered by pomologists as worthy of cultivation." **Luther Tucker**, Esq., presented twenty-three varieties. A premium was awarded to *Burr's New Pine* as the *best and finest flavored variety*, and to *Hovey's Seedling* as the second best.

At the meeting of July 10th, cherries, gooseberries, and currants, were the main objects. *Black Tartarian* was awarded the premium as the best cherry, *Sheba Queen* the best gooseberry, *Knight's Sweet Red* the best currant, *Fastolff* the best raspberry. Of flowers there appears to have been a fine display at all the meetings. At the last the following gentlemen were chosen delegates to represent the Society in the American Pomological Congress, the next session of which is to convene in Cincinnati in September next, viz:

From the county of Albany, Joel Rathbone, Dr. Herman Wendell, B. P. Johnson, Ezra P. Prentice, James Wilson, Sanford Howard, and E. H. St. John. From the county of Rensselaer, V. P. Douw, D. Thomas Vail, B. B. Kirtlandt, S. E. Warren, Amos Briggs, William Newcomb, and William Buswell.

OSWEGO HORTICULTURAL SOCIETY.

An exhibition was given by this Society on the 10th of June. We should judge from the reports of the Committees, that the display was quite creditable. A large variety of Cherries were shown, as well as Gooseberries Currants, and Strawberries. The premiums are awarded to individuals without stating which variety of fruit entitled the exhibitor to the premium. This destroys one of the benefits of horticultural exhibitions, and deprives us of the opinions of our Oswego friends of the comparative value of the different varieties. The display of flowers must have been very fine. We count over forty contributors of flowers, mostly ladies.

NIAGARA COUNTY HORTICULTURAL SOCIETY.

We note the organization of this neighboring Society with much pleasure. Niagara is one of the finest counties in the State for horticultural purposes, and this Society, if liberally sustained, can not fail to be eminently useful in diffusing knowledge and taste. Its first exhibition, on the 7th of July, has passed off, according to all accounts, much to its credit and to the gratification of those who witnessed it. N. B. **Rogers**, Esq., is the President.

AMERICAN POMOLOGICAL CONGRESS.

We solicit the attention of all Societies and individuals interested in pomology, to the following circular, issued by the officers of the Pomological Congress:

In conformity with the Resolutions passed at the last session of this National Institution, its next meeting will be held in the city of Cincinnati, Ohio, on the 11th, 12th, and 13th days of September next, A. D. 1850.

The Ohio State Board of Agriculture, and the Cincinnati Horticultural Society will also hold their annual exhibitions at the same time and place, and the latter have generously offered to provide for the accommodation of the Congress.

All *Agricultural*, *Horticultural*, *Pomological*, and *kindred societies* in the United States and the Canadas, are hereby respectfully invited to send such number of Delegates as they may deem expedient.

In order to facilitate the objects of this Association, to promote Pomology and the sciences on which it depends, to collect and diffuse a knowledge of researches and discoveries in this important department, delegates are requested to bring with them specimens of the fruits of their respective districts, with lists of the same, and also papers descriptive of their art of cultivation, of diseases and insects injurious to vegetation, of remedies for the same, and whatever will add to the interest and utility of the Convention.

Packages of Fruit not accompanied by their proprietors, may be addressed to the care of Messrs. **John F. Dair** & Co., Lower Market street, Cincinnati, Ohio. These should be very distinctly marked, "For the American Pomological Congress."

All Societies to be represented in this Congress, will please forward certificates of the election of their several Delegations, to J. B. **Russell**, Esq., Corresponding Secretary of the Cincinnati Horticultural Society. Delegates will also report themselves at the **Burnet House**, on the morning of the 11th, where a Committee will be in attendance to take charge of their Fruits, and whence the Congress will proceed to the hall assigned for its meetings.

MARSALL P. WILDER, *President*.

S. B. Parsons,
P. Barry,
Geo. W. Deacon, } *Secretaries.*

July 4, 1850.

New Potatoes.—Fine ones were exibited in the Horticultural Society's show-case in Rochester, on the 13th of July, by **John Donnellan**, of Hanford's Landing.

ANSWERS TO CORRESPONDENTS.

P. BARRY—*Dear Sir:*—Being an admirer of the Spiræa family of shrubs, I take an interest in every word said in their praise. I am confident few genuses of hardy plants add more to the sublimity of our lawns, shrubberies, and borders. I am familiar with all the most esteemed species, and with *lanceolata*, of which you gave an engraving in the July number of the Farmer. I also know *ulmifolia* as an herbaceous perennial variety, the description of which corresponds with yours, except being an herbaceous perennial instead of a *shrub*. I will describe the herbaceous *ulmifolia*, and give you the year of introduction:—Color of flower, white; time of flowering, 6th month; native of Caniola; introduced the year 1790. I have searched all botanical works of the latest dates, and got up by the first authors, for a shrubby *Spiræa ulmifolia*, and can not find anything said or quoted of such a shrub. Please inform me, through the pages you edit, if the *ulmifolia* of which you gave an engraving. is new, and where it came from, and when. I am desirous of knowing, having nearly all the most desirable *Spiræas* under cultivation, and will have the *ulmifolia* you describe, if *distinct*. C. J. RYAN. —*Rochester and Charlotte Plank Road Nurseries, July*, 1850.

We are quite astonished at you, friend RYAN. Why didn't you search among other "botanical works of the latest date," LOUDON'S *Encyclopedia of Plants*, his "*Arboretum Brittanicum*," or the *Bon Jardinier*; any, or all of them, will tell you about the *Spiræa ulmifolia*. But, pray, in what work have you seen the account of the herbaceous species? or have you seen the plant?

……

MR. EDITOR:—In reading your excellent paper, I found a recommendation to raise dwarf fruit trees, especially pears. Do you dwarf apple trees also? If so, will you please give some of your friends in a new country, where quince tress and fruit of all kinds are scarce, some information as to the manner of obtaining them? In so doing, you will very much oblige a number of the readers of your paper. D. WOODS.—*Woods' Corners, Hills. Co., Mich., June*, 1850.

The quince stocks suitable for dwarfing the pear on, can be obtained from the nurseries. The apple, for *pyramids*, is worked on a species of apple called the *Doucain;* and for *dwarfs*, on the *Paradise:* both of which can be procured at nurseries where trees of this character are grown. These stocks are mostly imported from Europe, by our nurserymen; but when a stock is once obtained, they may be increased by layering.

……

(A Young Subscriber.) The time for grafting is March and April. You can bud through August and part of September. You can dwarf the *apple* by grafting or budding on the *Paradise* stock, the *pear* on the *quince* stock, the *cherry* on the *mahaleb* stock, the *apricot* and *peach* on a slow growing *plum* stock. Clear fruit trees from moss, as recommended by Mr. STONE, in this paper — lice, by washing with a solution of soft soap and tobacco; either dip the ends of the shoots mostly affected in the wash, or throw it on in the morning or evening, with a syringe. The *birch* can not be used as a stock for fruit trees. Use free stocks for standards and those above named for dwarfs. Cut out the black spots on apple trees, to the sound wood and bark, and the parts will soon heal over at this season.

……

(A Young Gardener.) To destroy the aphis, or green louse — pour boiling water on tobacco; when the strength of the tobacco is extracted, add soft soap, and treat your trees as recommended in the above article The black slug that is doing your pear and cherry trees so much injury, you might have very easily destroyed by sprinkling dry ashes or lime on them.

MOSS AND ROUGH BARK ON TREES

ALL are perhaps ready to agree with me, that moss and rough bark are heavy drawbacks on the apple tree. We will first consider the cause, second the effect, and then the remedy. The center of vitality in the stem or trunk of a tree, is in the line of demarkation between the bark and wood; and it recedes from that point both to the center of the wood and to the surface of the bark, until in old trees dead wood can be found in the center, and dead bark on the surface. By a law of nature, when life ceases to hold organized matter, dissolution and decay follows. It then becomes food for other organizations, and thus never ending changes are going on. Moss is a kind of parasite that grows from the dead bark, and is supported by the decayed matter of the dead bark and also by drafts of sap from the live bark. Thus the moss steals, as it were the *life blood* of the tree, and it loses its healthy appearance, and its fruit is lessened both in quality and quantity. Moss and rough bark are also places of deposit for insects, in which their eggs are deposited. They also hold water for days after rainy weather, and by its gradual evaporation keep the temperature of the tree too low for a cold climate.

As a remedy, use a scraper first, and then, on young trees whose heads are not sufficiently developed to shade the stem or trunk, use whitewash, which will reflect the heat and relieve it from the extreme heat of a summer sun; but on large trees, soad suds, ashes and water, or lye, is preferable. In washing young trees, lye should not be too strong; otherwise, unless it is washed off or put on immediately before a brisk shower, there is danger of injuring them.

In order that these hints may be put in practice, and that good may be the sequel, I will cite the reader to his own observation. Show me a mossy, rough barked orchard, that yields a fair return of good fruit, and I will show you a *phenomenon*. ARCHIBALD STONE.—*Hinmanville, April*, 1850.

A CURIOSITY

MESSRS. EDITORS:—As I was gathering apples in the fall of 1848, I came to a large Greening tree, and the next tree south of it was a Russet. I put my ladder against a large limb of the Greening, that projected toward the Russet, and ascended, and found a branch containing eight or ten Greenings, large and fair, and one apple about two-thirds as large, covered with russet. I cut the branch off and showed it to two men who were present. Had it fallen to the ground before discovered, every one would have said it grew upon the other tree. I did not taste it, as one present said he would carry it home as a curiosity. If it was not fertilized by the other tree, what was the cause? I saw several others that had round spots of russet, some as large as a ten cent piece. A. W.—*Marcellus, N. Y.*, 1850.

Were it not for the confidence with which A. W. makes his statement, we should be inclined to think the russet apple came from the russet tree, or that this apple had only the russety appearance common to a greening grown in the sun..—ED.

REMOVE the surface of the ground before watering trees or plants, then water thoroughly, and when the water has disappeared, return the earth.

Ladies' Department.

WE really don't know what we should do without our LADIES' DEPARTMENT. It is our flower garden — a summer-house in a shady nook. Here we retire from our cares and labors to hold converse with the fairest and best, for our mutual benefit Here we are confined by no arbitrary rules — to no particular subject. We gossip about matters and things in general, always, however, aiming to unite pleasure and profit. Within the border of this page we allow no critics or grumblers to enter; they may look in, if they choose, and admire our fine gardens, inhale the fragrance of our flowers, listen to our conversation about equestrian excursions at sun-rise, but they can go no farther. It is sacred to ourselves and the ladies. We always give the ladies an oppertunity to talk first, having something to say ourselves to fill up time, and make things pass off pleasantly. "MIGNONETTE" has a word to say on EARLY RISING:

MESSRS. EDITORS:—Will you be so kind as to allow me the privilege of saying a few words about early rising, to the young ladies who read your columns. From my own experience I consider early rising to be almost a virtue. Nearly every person of remarkable longevity on record has testified to the habitual observance of this practice; and it was no doubt designed by God himself, as one of the preventives of disease and mortality. Then there is so much pleasure to be enjoyed in the morning—pleasure of the truest kind, peculiar to this season of the day, whether we employ our time either in bodily or mental recreation. During these beautiful summer mornings, while the leaves are glistening with dew, and the flowers are emitting their delicious fragrance, and the sweet little birds are making the air vocal with their delightful music, the very consciousness of life seems a luxury. I have a cousin, Emma, who had formerly not been guilty of rising till the sun had made quite a respectable angle with the horizon. After some teasing, I persuaded her to rise one morning at four o'clock, and take a jaunt upon horseback. At a quarter past four we started up Main street. It was as lovely a morning as I ever beheld.

"From fleecy clouds of pearly hue
Had dropt a short but balmy shower
That hung like gems of morning dew
On ev'ry tree and ev'ry flower."

The air seemed to be actually filled with music, issuing from little tiny throats; the new mown clover sent up a sweet fragrance like incense to the skies — indeed, it seemed as if the whole earth was one magnificent temple, where God's creation were praising him for his beneficence. "Well, really, this is the most lovely ride I ever enjoyed," cried Emma, her eyes as bright as two dimonds, and her cheeks glowing from exercise. "I am sure, now I have found out how to enjoy so much pleasure, Prince will have to trot out oftener than usual." I will say here that this resolution has been kept pretty well ever since. We trotted along by Clover-street seminary, our tongues in the mean time keeping up quite a lively rattle about this bird and that, this pretty wild flower and yonder towering tree, till we came to the road that leads to the city by Monroe street, where we turned about and began to beat a retreat. Before this time people were moving about quite briskly—milk-maids carrying into the house pails almost overflowing with their snow-white treasure — boys were turning the grindstones while the men held the scythes, sharpening them before commencing their daily toil — children feeding the hens and chickens, — and the whole together forming a peaceful, picturesque scene, worthy of a painter's genius or a poet's verse. Thus we jaunted along until we reached the city's limits, passing along Monroe street, and just as we turned into Clinton street the bell tolled seven from St. Paul's tower, waking many, I have no doubt, from their protracted slumbers, who had thus lost the loveliest portion of the day. It has been said that "man is a bundle of habits," and we have it in our own power to establish such habits as shall promote our happiness and well being, or such as shall tend to sorrow and disease. Young persons may so accustom themselves to early rising as to cause it to become a practice which they will follow down to the latest period of their life. MIGNONETTE.—*Rochester, July*, 1850.

Early rising would destroy about one-half the ills that flesh is heir to, and exercise in the open air nearly the other half. Both are connected. Many are so situated, that unless they rise early they have no opportunity for out-door exercise. In the summer season the noon-day sun is oppressive, and often injurious to those unused to bear the intensity of its direct rays. The birds then retire to the shady grove — they are not in your garden to welcome you with their songs. We rather think MIGNONETTE and EMMA had a good appetite for their breakfast. Too many get up at seven or eight o'clock, take breakfast almost immediately, and then wonder that they have no appetite.

There are some foolish men in the world, that prize women in proportion to their uselessness and ignorance. The less they know and the less they do — the nearer they arrive at the perfection of a doll — the better they are pleased. If a woman reads useful books, cultivates her mind, reasons and thinks for herself, she is a *blue-stocking*; if she takes an interest in the cultivation of fruits and flowers, and the products of the farm, the orchard, and the garden generally, she is unwomanly. But the number of such men is growing less, and their good or bad opinion was never worth a straw. We rejoice that there are hosts of women not afraid or ashamed to be useful. We have the names of many such on our books. The following is an extract of a letter from one in Michigan:

I will here say, as an apology for not enclosing subscription money as soon as it may be expected, that I receive but very little money on subscriptions: but being under the necessity of supplying my domestic affairs, indoors and out, I can get chopping or hoeing done in payment for the Farmer, and thus get subscribers when, if I required them to pay the money, I could not. R. E. P.

Our fair friend need make no excuses, as we feel proud of having her name on our books. We know of more than one lady taking active measures to increase the circulation of our journal; but taking pay for the Farmer in "hoeing" and "chopping," and sending us the cash, is something we were hardly expecting, and entitles the lady to our warmest thanks. It is facts like these, almost daily occurring, that render our duty pleasant. We have twenty thousand names on our books, that for intelligence — in short, for all that makes man great—we would place against any twenty thousand that could be selected in the universe. As we pass over their names month after month, and have communication with them through our paper and otherwise, they become associated with us as friends and acquaintances, from whom we hope never to part.

The following, though delayed a little, would never be out of season. It is just such a production as we might expect to originate at *Floral Cottage*, from one surrounded by "blossoming wreaths":

MESSRS. EDITORS: — Summer has come. June, delightful June, with her blossoming wreath, is now the queen of the season; and her regal step, as she advances to resume her empire, is greeted by all. Walking out this morning in our "flower garden," my mind involuntarily recurred to your pithy sentiments, relative to your "*Floral Rake*;" and I thought if you, in your liberality, would only favor me with one of those valuable appendages to a flower garden, I could certainly cultivate flowers with more ease, and to better advantage. Should you favor me with one of those rakes, I will esteem it as a token of generous friendship, to be prized by me as an appendage to my garden. I will use it with proper "intellectual" care, and pledge you a tasteful boquet in return. A FARMER'S WIFE. — *Floral Cottage, N. Y., June*, 1850.

Youths' Department.

DEATH OF THE PRESIDENT.

"I may have erred—but I have endeavored to do my duty."

It is not our duty to talk of politics or presidents. We have our sphere — to enlighten the minds of the agriculturists of the country — to teach them their high destiny — to teach them to love their profession as one of honor, a profession in which may be employed all the intellect, all the knowledge, that God has given or man acquired, — to teach this particularly to the young, too many of whom have been inclined to look with contempt upon what they call the "plodding" life of a farmer, and to rush into our cities, there to meet with difficulties they had not dreamed of, and temptations they are unprepared to meet. We endeavor to enforce the idea that it is fully as honorable—as intellectual—to cultivate the soil, and cause it to bring forth abundantly, as to measure calico, sell molasses, peddle pills and calomel, or superintend the quarrels and law suits of others. This we believe to be *our duty*.

But, the death of President Taylor, which has cast a gloom over our country, and caused even those unused to serious thought to think solemnly for once, furnishes a not unfitting occasion to say a word to the youth, on the proper aim of man. It is contained in the last words of our lamented President, at the head of this article — "I have endeavored to do my duty." It is not a lofty position, the posession of great power, the applaudits of millions, or the flattery of friends, that makes man *great*; but the *honest performance of duty*, in the sphere in which he moves, no matter how elevated or how humble that sphere. This it may be difficult for us now fully to realize; but when we stand, as did President Taylor when he uttered these words, upon the edge of an opening grave — the last spark of life almost extinguished—the last struggle almost over—we shall see the world, its duties, and objects, in a proper light — in a light reflected from the invisible world. If at that trying moment we derive consolation from a review of our past lives, it will not be from wealth or honors—not from great battles fought or glorious victories won,—but from the fact that we have faithfully and untiringly endeavored to do our duty.

THE ANALOGY BETWEEN ANIMAL AND VEGETABLE LIFE.—No. 2.

Carbonic acid, *ammonia*, and *water*, yield the elements from which are formed all the *organic* parts in the structure both of animals and plants. Certain *inorganic*, or *mineral* substances, are also required in both cases; as lime, to give solidity to the bones of an ox; and silica, or flint, to the stem of wheat. The process of digestion in an animal is analogous to that of appropriation and nourishment in a plant. To draw the comparison still closer and fix it in the mind, let us glance briefly at the organic substances found in vegetables, as *albumen*; *gum*, *sugar*, *gluten*, *woody fibre*, *fixed and volatile oils*, &c., and their corresponding substances in the animal economy:

1st. *Albumen*, which exists in nearly a pure form in the white of an egg, is found also in the almond and in the kernel of nuts. The juice of a West India plant (*Hibiscus esculentis*) contains liquid albumen in such quantities, that it is used as a substitute for the white of eggs in clarifying the juice of the sugar-cane. This substance is common in both animal and vegetable kingdoms, and may easily be distinguished by its property of coagulating, or becoming hard and permanently solid, by the action of moderate heat or of acids. It forms a constituent of the serum of blood, of several of the animal secretions, and, in a solid form, of some of the organized structure of the body. Its composition, from whatever source it is obtained, is carbon 52, hydrogen 7, oxygen 23, and nitrogen 15 parts, in every 100.

2d. Vegetable *gum* is analogous to animal *mucus*. Gum is the substance which exudes from certain trees. It appears in the form of a thick fluid, but soon hardens in the air, when it becomes nearly white and somewhat brittle. Its characteristic properties are, easy solubility in water and insolubility in alcohol. Its composition is, carbon 43, oxygen 51, hydrogen 6, in 100 parts; and all varieties are nutritious as food. *Mucus*, or the animal counterpart of gum, is a secretion found on the surface of the lining membrane of the intestines, and possesses the same characteristics and nearly the same composition. It may be obtained by evaporating the saliva to dryness, and is then similar to gum-arabic in appearance, but rather more opaque. The fluid found in the shell of an oyster, when evaporated, produces this substance.

3d. *Sugar* is essentially the same, whether derived from the maple tree, the cane, the beet, or the milk of animals. In the last named substance it constitutes about one-third of the whole solid matter. Its composition is nearly identical with that of gum.

4th. Let us compare vegetable *gluten* with animal *gelatin*. Gluten is one of the most nutritious of vegetable substances; and wheat owes its superiority to all other grains, in a great degree, to its containing this substance in larger proportion. It has a gray color, is elastic, ductile, and tenacious; soon decomposing when kept in contact with air, and emitting an offensive odor, similar to that of putrid animal matter. It is readily obtained from wheat or flour, through the agency of cold water and pressing out the starch. Gelatin is an animal substance nearly identical with gluten, which enters largely into the composition of bones, horns, hoofs, &c. Isinglass and glue are forms of gelatin; and when the lime is dissolved out of bones by means of sulphuric acid, this substance remains in nearly a pure state.

5th. *Woody fibre* is the substance remaining after a plant has been exhausted of all its soluble materials, by repeated boilings in water and alcohol. It resembles the animal substance called *fibrin*, which is the principal constituent of the muscular, red, or fleshy part of animals, and of blood. Fibrin is white and inodorus; and when dry, is hard, brittle, and slightly transparent. It may be procured by digesting small pieces of lean meat in repeated portions of water.

6th. The *fixed oils*, whether of animal or vegetable origin, have essentially the same composition.

The above are a few of the many organic substances, having a striking similarity in composition and properties, which are found in both the animal and vegetable kingdoms. The analogy might be carried to any extent, were it necessary to establish the identity of matter, the elements of which are chiefly furnished by air and water, and are so arranged, or *organized*, as to form in the one case the root, sap vessels, bark, and leaves, of a tree; and in another the bones, blood vessels, skin, lungs, and muscles, of a man. F.

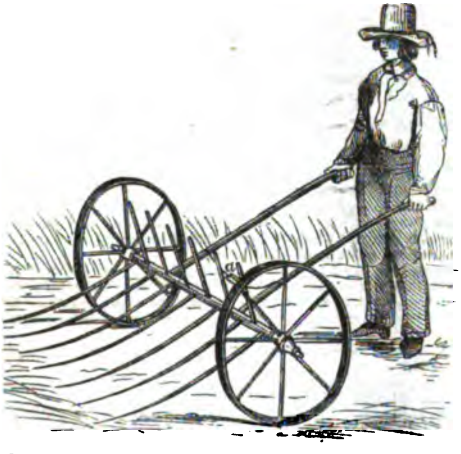
Editor's Table

We have many more articles on hand from correspondents than we can at present find room for. Our friends, however, must not be impatient, as we shall give them a place as soon and as fast as possible.

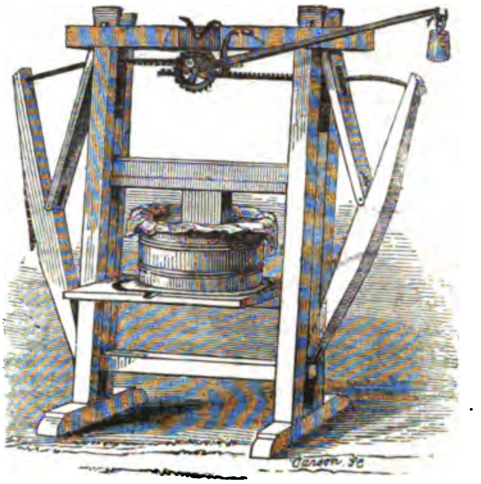
Mr. Sheafe's Sale of Short-Horns.—This stock is advertised on page 199 of this number, and also on this page, and the sale is to take place on Thursday, the 29th day of August. Mr. Sheafe has bred his stock with reference to their milking qualities. The editor of the Agriculturist says: "Cream Pot, one of the founders of this herd, gave, in her prime, and in the best of the season, 36 quarts of milk per day, which made at the rate of 18 lbs. 6 oz. of butter per week. Lucilla gave 29 quarts per day, and made 15 lbs. 3 oz. of butter per week. Celeste, Venus, Beauty, Phœbe, and Dahlia, gave from 25 to 33 quarts of milk per day; and their descendants, now principally forming the herd, are nearly as promising. The heifers and cows, from three years old and up, now give from 15 to 27 quarts of milk per day, in the best of their season. These quantities have not been guessed at, but were made subject to actual measurement in our presence." Mr. Allen, of New York, who has charge of the sale, in the absence of Mr. Sheafe, has furnished us in a letter with the following particulars, which will be interesting to many of our readers:

> The stock will be tied up and arranged according to the numbers in the Catalogue the day before the sale, and on sale's day. Thus, every one will be able to examine them to their entire satisfaction. When the sale commences an ample ring will be staked out and roped. Into this circle each animal will be brought when it is put up for sale and walked round for inspection. As all persons will be kept outside of the ropes, this again will give every one present an opportunity of close examination. If there be any unsoundness or vice in any animal, on sale's day the public will be informed of it. It is my intention that every thing shall be conducted in the most honorable manner; and in doing this, I am happy to add, I shall be only carrying out the express wishes of the owner of the herd.
>
> New Hamburgh is on the east side of the Hudson River, eight miles above Newburgh, and about the same distance below Poughkeepsie. It can be reached by railroad from opposite the former place, or directly from the latter, in fifteen minutes. It is only two or three hours distant from New York by rail-road, and four to five hours from Albany by steamboat and railroad. Several trips per day are made to each at from 85 cts. to $1.

Improved Implements.—Nothing is of more importance to the farmer, than a knowledge of the improvements constantly making in implements, by which his labor is lessened, and his work better done. We present a few of the latest.



Grain Binder's Wheel Rake.—The above cut represents a labor and time-saving implement, used extensively in several States where it has been introduced. It is light, weighing about fifteen pounds. As represented in the engraving, the binder takes the handles and pushes it before him, with the points of the teeth or fingers close upon the ground, and when he has gathered on the fingers a sufficient quantity for binding into a sheaf, he places his foot upon the foot piece (*a.*) and by a slight pressure, and by letting go the handles, the fingers and grain are raised above the stubble, when it is readily bound, the binder being required to stoop much less than in the old way of reaching to the ground. When the sheaf is bound and thrown aside, the foot is removed from the foot-piece, (*a.*) the teeth drop down, and the handles rise ready for the next operation. The wheels are about eighteen inches high, and it is easily pushed before the binder. The width between the wheels is sufficient for the largest grain. It is for sale at Emery & Co.'s Albany. Price from 3 to 4 dollars.



Kendall's Cheese Press.—The above cut represents an approved Cheese Press for which the New York State Ag. Society awarded the first premium in 1847, and is, we learn, generally used in the counties of Oneida, Herkimer, &c., in this State. Its construction is a combination of levers working together, and so arranged as to give any desired amount of pressure. A suspended weight of twenty pounds being sufficient to give a pressure of ten tons. They can be had of Emery & Co., of Albany. Price $15.

Milking Machine.—The papers at the east are talking about a Gutta Percha Milking Machine, which is applied to the cow's teat without pain or injury to the animal, and causes the milk to flow in a steady stream, until all is drawn from the bag.

State Fairs for 1850.—State Fairs for the present year will be held as follows:

New York—at Albany, Sept. 3, 4, 5, and 6.
Maryland—at Baltimore, Oct. 23, 24, and 25.
Ohio—at Cincinnati, Sept. 11, 12, and 13.
Michigan—at Ann Arbor, Sept. 25, 26, and 27.
New Hampshire—first week in October.
Upper Canada—at Niagara, Sept. 18, 19, 20.

Agricultural and Horticultural Implements, and Field and Garden Seeds.

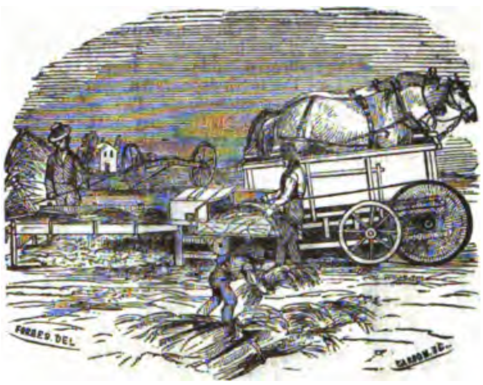
UPWARDS of *one hundred* kinds of Plows, and a corresponding variety of all other implements for the farmer, planter, and gardner; embracing the largest and most complete assortment to be found in the United States. Also, Field and Garden Seeds—a large and varied assortment. A. B. ALLEN & CO.,
August, 1850. [8-tf-o] 189 and 191 Water st., New York.

Mr. Sheafe's Sale of Short-Horn Stock.

THE following are the conditions of the sale:—In order to save time in bidding, and ensure despatch, the sows and heifers will be put up at a price varying from $25 to $100 each, dependent upon the animal. If bid off at the price named when put up, or anything above, it will then be the property of the person bidding, otherwise it will be considered still the property of Mr. Sheafe. The bull calves will be put up at $25 each, and Exeter at $300. The sheep and lambs will be put up at $5, $6, and $7 per head, as above. The swine at $5 to $10 dollars per head, according to age. The working oxen at $100. After an animal is bid off, it will then be considered at the risk of the owner; but it can remain on the farm free of expense one week.

TERMS.—For all sums amounting to $100 and upwards, approved endorsed notes will be taken at six months, or a discount of five per cent. for cash.

Catalogues with full description and pedigree of each animal can be had on application to A. B. ALLEN,
August 1, 1850. 189 Water street, New York.



Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers, Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for Machines, and to establish agencies, to any extent that may be desired.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania,. Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones.

These Horse Powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron (of a proper height to allow the feeder to stand erect and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain or short oats, and re-setting it at pleasure, for long rye or wheat or oats in good order or for timothy grass or clover ; and all this is accomplished without stopping the Machine, so simple is the process By means of the Separator, the straw, as it comes from the Thresher, is effectually separated from the grain

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon ; but where frequent moving is desired, the two horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business, and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M. & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers ; and also Circular Saws, and Benches, for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M. & Co., or their agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two horse machine, complete, being less than 2,000 lbs., and of the one horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canada, where they are needed to facilitate the sale of these machines. Good agents are wanted in the Southern and Western States and the Canadas, to whom liberal commissions will be allowed.

Our agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester ; T. C. Peters & Brother, Buffalo ; Peter R. Sleight, Esq., Poughkeepsie ; F. F. Parker & Brother, Detroit ; John Melick, Trenton, N. J.; John Bowsfield, Kirkland, Ohio ; F. R. Elliot, Cleveland, Ohio ; James Williams, Bakers Town, Allegany Co., Pa.; Spears, Case & Co., Delphi, Indiana ; W. B. Arnold, Franklin Centre, Iowa ; Ephraim Abbott, St. Louis, Mo.

W. D. Bacon, Waukesha, is general agent for Wisconsin.

These machines may also be had of John Mayher & Co., New York city.

WHEELER, MELICK & CO.,
Hamilton st., corner of Liberty and Union sts., Albany, N. Y.; and Chicago, Illinois.
May 1, 1850.

Allen's Improved Portable Railroad Horse Power, Thresher, and Separator.

THE advantages of the above horse power, are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3 They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder, with a concave top, and possesses these advantages. 1 They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, stones, blocks, &c., drop at the end of the table, and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding ; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power ; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The seperator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of grain per day ; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$30
" " Thresher,	$28
" Seperator and fixtures,	$7
" Bands for driving, etc.,	$5
" Wood-sawing machine, complete, and in running order,	$35.
Price of Double Power,	$100
" with Thresher, Seperator, &c.,	$145 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfaction.

Also, Taplins 20 feet circular, and the Cast Iron Sweep Powers. Enquire at the New York Agricultural Warehouse and Seed Store of A. B. ALLEN & CO., 189 and 191 Water st., New York.

New Laws relating to Pensions and Bounty Lands,

OFFICERS and soldiers, their widows and children, of the Revolutionary war, war of 1812, and Mexican war, entitled to pensions, bounty lands, arrears of military pay, and extra pay, in certain cases.

The subscriber having devoted much of his time and attention for seven years past, to the investigation of claims before Congress and the several Departments at Washington, and having in his possession, and access to, a vast amount of old pay rolls, books, and documents, preserved from the service, affording proofs no where else to be found, he is prepared to aid vigorously and promptly, all persons who have claims against the General Government. Having a list of the names of all persons pensioned by the United States previous to 1824, he can give much information relating to such persons, which in many cases will enable their widows and children to obtain an increase of pension. Particular attention given to widows' claims which have been rejected.

He has also a list of the names of several thousand persons entitled to Bounty Lands, an object for many.

Children are entitled to both Pension and Land, where their father or mother was entitled, but omitted to establish their claims.

The subscriber has all the new laws, forms, and regulations, from the Pension Office, and is enabled to prosecute claims without delay.

☞ No charge for information or services, unless the claimant is benefitted.

All letters of application and inquiry will be promptly attended to, if addressed, post paid, to WILLIS G. WADE,
August, 1850. Rose, Wayne co., N.Y.

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only ; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings ; the most popular work ever published on the culture of bees. Price $1 ; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850. [6-tf]

BOOKS ON AGRICULTURE, &c., &c.,

For Sale at the Office of the Farmer.

The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed :—

American Agriculture, by Allen $1.
American Farm Book. $1.
American Poultry Yard, by Browne. $1.
American Shepherd, by Morrell. $1.
American Veterinarian, by Cole. 50 cents
Buel's Farmer's Companion. 75 cents
Buist's Kitchen Gardener. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Coleman's Continental Agriculture. $1.
Complete Farmer. $1.
Cole's American Fruit Book. 50 cents.
Domestic Animals, by R. L. Allen. Cloth, 75 cts. ; paper, 50 cts.
Downing's Fruits and Fruit Trees of America. $1 50.
Downing's Landscape Gardening. $3 50.
Essay on Manures. 25 cents.
Farmer's and Emigrant's Hand-Book. $1.
Farmer's Manual.
Gardener's Farmer's Dictionary. $1 50.
Home Doctor. 25 cents.
Horse Doctor. 25 cents.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Johnson's Dictionary of Gardening.
Kirby & Spencer's Entomology. $2.
Knowlson's Complete Farrier, or Horse Doctor. 25 cents.
Ladies' Companion to the Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chemistry, (pamphlet editions.) 25 cents each
Loudon's Ladies' Flower Garden. $1 25.
Mason's Farrier and Stud Book. $1.
Miner's Bee-Keeper's Manual. $1.
Norton's Elements of Scientific Agriculture. 50 cents.
Poultry Book, by Bennett. 75 cents.
Rural Economy, by Boussingault. $1 25.
Scientific Agriculture, by Rodgers 75 cents.
Stable Economy, by Stewart. $1.
The Bird Fancier. 50 cents.
Treatise on Milch Cows. 38 cts.
Trees of America $4.
Youatt on the Pig. 75 cents.

ALSO,

2 setts Chamber's Miscellany. $8 per sett

*** These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired

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Daguerreotypes that are Daguerreotypes.

BROWN & HOWARD'S Emporium Daguerrean Gallery, No. 9, second floor Gould Buildings Having opened a splendid Gallery in the Gould Block, would respectfully invite the public and all those wishing good likenesses, to give us a call, and we will assure them they will not waste time and money, as is often the case. Our Gallery is furnished in a style of unusual splendor, equal to any in the State. The walls are adorned with some of the finest works of Art, both of pencil and engraver.

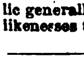
Strangers visiting the city, and having a few leisure hours, will be amply rewarded by a visit to our Gallery, which will be kept open during all business hours. Please call and examine for yourselves.

WM. BROWN,
JOHN HOWARD.

The undersigned takes this method of informing the citizens of Rochester and vicinity, that by the solicitations of many citizens, he has been induced to return to the city for the purpose of making it a place of permanent location. Having been absent from the city one year, and in constant practice, experimenting in the above named Art, has now returned better qualified than ever, not only to sustain. but excel my former reputation as an Artist, being well known in this city and vicinity, as formerly principal operator in Mercer & Co.'s Gallery, corner of Main and St. Paul streets, would now respectfully invite my old friends, and the public generally, to call at No. 9, Gould Buildings, where you can see likenesses that will speak for themselves.

[7-tf] W. BROWN.

Pure Merino Bucks for Sale.



I HAVE some twenty-five *yearling Bucks* for sale, on good terms. They are pure bred Merinos—among the best in the country. The last fleece of my stock buck was 10 lbs. 11 oz.

Also, two bucks, three years old. REED BURRITT.
August 1, 1850. [7-1t*] Burdett, Tomp. co., N. Y.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y. warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.

Bickford & Huffman's Grain Drill.

THIS Drill is an improvement, in several important particulars on Bickford and Huffman's Drill manufactured and widely distributed last year, and which operated to the entire satisfaction of every purchaser. The chief points of superiority are as follows :

1. The revolutions of the Distributing Cylinder are increased or diminished at pleasure, with perfect precision. by means of cog-wheels of different sizes. By this arrangement, the quantity of and distributed to the acre is regulated with perfect accuracy.

2. The Teeth may be elevated or dropped separately, or simultaneously, with a single motion of the hand, according to the will of the operator.

3. The Drilling Tubes, being made of iron instead of leather, are immeasurably more durable, and the seed always passes them with a clear and unimpeded current.

4. This Machine possesses great advantages in the superior regularity of distribution along the furrow—in the simplicity of its construction — in the durable and substantial style of its manufacture—and in its far greater cheapness, when all its points of usefulness are taken into consideration.

This Drill will sow all kinds of grain, if properly cleaned.

PRICES—Seven tube Drills, $65 ; Nine tube Drills, $75.

Orders, addressed "Bickford & Huffman, Macedon, Wayne co., N. Y.," will be faithfully and promptly attended to.

The Princess Tribe of Short Horns.

IN January, 1849, Mr. Sheafe, of High Cliff, Dutchess county, N. Y., imported the young bull Exeter, bred by Mr. Stevenson, of Durham, England. Mr. Stephenson is the most celebrated breeder now living, and his herd is of the Princess tribe, one of the best and most ancient stock of Short Horns. The breeding of the Princess tribe can be traced back as pure Short Horns upward of *two hundred years*. a matter of no small consideration to those who wish to breed true stock of a reliable quality.

Exeter was selected for Mr. Sheafe, by that excellent judge of Stock, Mr. A. Stevens, of New York. He was considered one of the very best bulls in England Quite a high price was paid for him. It is believed that his superior has never before been imported into this country. He is a beautiful yellow-red—which is a bright red, with a fine golden or saffron under tinge, arising from a rich yellow skin. and is the only bull of this peculiarly fine red ever imported. A few calves of his get will be for sale this season. Their dams are Herd Book Short Horns, very fine in their points, and great milkers. Those who desire to improve their present stock by taking a superior fresh cross, will please to apply to

June, 1850. [6-3t] A. B. ALLEN & CO., New York.

Burrall's Agricultural Foundry and Machine Shop.

GENEVA, ONTARIO COUNTY, N. Y.

THE subscriber manufactures various Agricultural Implements of the most approved kinds, which he sells at wholesale and retail. His work is all warranted to be well built and to work well.

The increasing demand for articles of his manufacture, recently rendered additions to his shops necessary, which having been completed, he has every facility for producing perfect work, and at reasonable prices.

Among the implements now sold by him, are Burrall's Clover Mills, 4 sizes, [1st premium last State Fair ;] Burrall's Shell Wheel Plows, 12 sizes, highly improved the present season ; Plain, Iron beam, Shovel, Subsoil, and Corn Plows ; Burrall's Corn and Grain Cultivators ; Improved English Drill, for seeding and manuring at a single operation ; Straw Cutters, for hand and horse power ; Threshing Machines and Horse-Powers, Clod Crushers, Field Rollers, Corn Shellers and Separators, &c., &c.

Orders from abroad attended to without delay. A liberal discount to the trade. Rapalje & Briggs, Rochester, agents.

Geneva, N. Y, June, 1850. E. J. BURRALL.

Pure White Lead.

THE Rochester White Lead Manufacturing Company beg to offer their brands of PURE LEAD to the attention of agriculturists and horticulturists, for painting permanent structures of every description.

This article has been thoroughly tested by the best judges in this city, and pronounced a genuine article. Persons desiring to test the purity of the lead, may have it analyzed by a chemist ; and if in any case it should be found impure, we will pay the price of analyzing it, and refund the money for the lead.

Be particular about the brand : "Moulson's, 36 Front street, Rochester," is marked on every keg. Purchasers of lead have occasionally been deceived in buying lead branded as Rochester lead. Mark, *we are the only manufacturers of lead here.* There is, however, a large quantity of lead "fixed over" here. Nevertheless, we wish our lead not to be confounded with that or any other, and therefore desire all consumers to give us a trial.

SAMUEL MOULSON, No. 36 Front st.
Rochester, August 1, 1850. [8-tf]

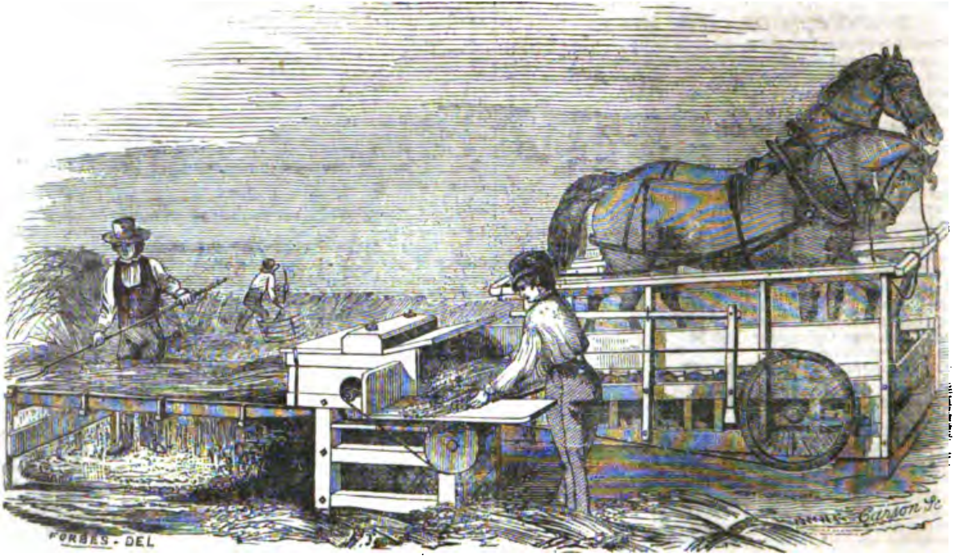
TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F. REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds, Stained and enamelled Glass ;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass, French White Looking Glass Plates, &c., 17 Buffalo street, Rochester, N. Y.



EMERY & CO.'S LATEST IMPROVED RAILROAD HORSE-POWER, OVERSHOT THRESHING MACHINES AND SEPARATORS.

THE above cut represents this most useful Machine,

FOR WHICH PATENT HAS BEEN SECURED.

with the *latest improvements*, embracing some of great importance, which have suggested themselves from time to time, as the various kinds made and sold by us have become used, worn, or failed.

The most important of these consists principally in the new mode of applying the power and motion from the endless platform to the shaft of the main driving pulley, and obtaining the necessary motion for the Overshot Threshing Machine without crossing of bands or intermediate gearing, and at the same time dispensing with the small pinions and cogs upon the links of the endless platform, thereby combining *greater strength* and *durability* with *lighter friction*, without the liability of breakage of links, or the wearing of links and pinions, (no small item in the expense of repairs in most other kinds of powers in use.) The farmer or mechanic is enabled to perform a greater amount of work, and to operate them with less expense of power or elevation, as best suits his wishes.

Having been long engaged in the manufacture, introduction, sale, and use of various kinds of Horse-Powers for different purposes, and at all times adopted such improvements as from observation and experiments have seemed desirable and necessary, we feel confident that in this Power, as now manufactured, all that can be desired is found to a greater extent than any other heretofore sold by us, or with which we are acquainted.

They were introduced to some considerable extent last season, and wherever used side by side with the most approved Powers of other kinds, have given unqualified satisfaction and been preferred.

The overshot Thresher and vibrating Separator with improvements, have been sold with like success as the Powers. They admit of a level feeding table, thus avoiding accidents, which often occur with the inclined feeding board, by preventing hard substances, sticks, and stones, from getting into the machine and breaking spikes, endangering those engaged with them. The cylinder shaft (of cast steel) runs in bronze boxes, which are so made of two parts as easily to be adjusted when worn loose, and can with little trouble always be kept tight. The speed of the power is such that a larger pulley is used on the Thresher than on most others—driving stronger with less liability of slipping of bands, which are made of vulcanized India rubber. The Separator makes a complete separation of grain from straw, leaving it in best condition for Fan-mill; saving the labor of several men, and doing the work better.

Fan-mills of various sizes, for hand, or fitted to be driven by the Power at same time of threshing. Also, Saw-mills in complete order.

The double Horse-Power is capable, with three or four men, of threshing from 125 to 200 bushels of wheat or rye, and the single one from 75 to 100 bushels, or double that quantity of oats, per day. They are warranted to perform as above, or may be returned to us, or our agents of whom purchased, within three months, and money refunded. They may be had in Rochester, Buffalo, or any of the principal ports on the lower and upper lakes, by adding transportation. Good agents will attend to the sale of them in those places The prices will be—

For Single Power,	$85
" Thresher and Separator,	35
" Bands, Wrench, Oil Can, extra pieces	5—125
Sett Double Machines, complete,	150
Fan-mills, from	22 to 28
Saw-mill complete,	35

We will also furnish "Wheeler's" Machines, latest improved—

Single sett complete	$120
Double Sett do.	145

Terms cash, or approved notes, or acceptances with interest. To good agents in new locations, liberal terms will be given. For further particulars, see new issue of Catalogue, or apply personally, or by letter, at the Albany Agricultural Works Warehouse & Seed Store, 369 and 371 Broadway, Albany, N. Y.

EMERY & CO.

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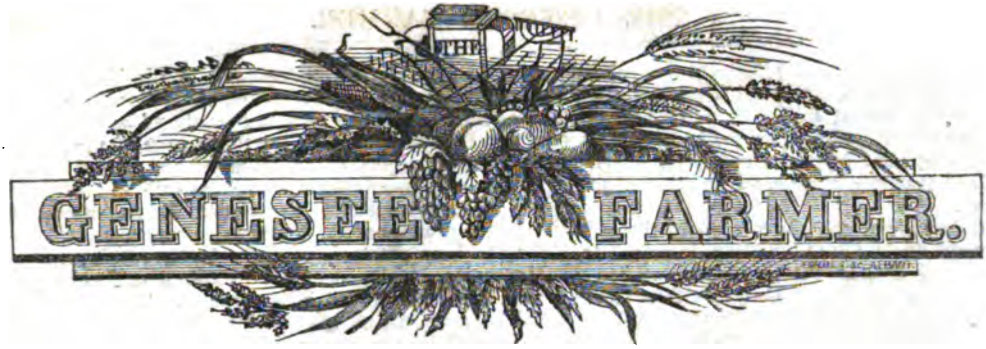
THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
VOLUME XI, FOR 1850.
Fifty Cents a Year, in Advance.
FIVE Copies for $2 ; Eight Copies for $3, and any larger number at the same rate.
DANIEL LEE.
December, 1849. Rochester, New York
STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.



Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—SEPTEMBER, 1850. NO. 9.

VIRGINIA LANDS AND FARMING

Every one who aspires to be an intelligent cultivator of the soil, should know something of the climate and agricultural capabilities of all of the great farming States of the Union. Among these—from its central position, its noble rivers, fine harbors, and being on the Atlantic — Virginia, which has been the mother of so many States, has peculiar claims to the study of every American. It contains 61,352 square miles, or within a fraction of 40,000,000 acres. Vessels drawing fifteen feet of water, come up the Potomac to Washington and Georgetown. Vessels of considerable tonnage are seen at the cities of Richmond and Petersburgh. The canals up the James and Potomac rivers are already completed far into the interior, and are still being extended. From steamboat navigation on the Ohio to Norfolk, through the James River canal, will be about 500 miles. Every body knows that Virginia lies in the valley of the Ohio, as well as on the Atlantic ocean. A loaded canal boat at Portsmouth, which is the southern terminus of the Ohio canal, is over 1000 miles from the city of New York, via Cleveland, Buffalo, and the Erie canal; and its cargo must be reshipped twice in crossing lake Erie. By ascending the Kanawha and descending the James rivers, in Virginia, the ocean is reached in half the distance, and without breaking bulk. This canal is not yet completed. The canal from Cumberland to Alexandria, in the District of Columbia, will be in operation all the way by the first of August.

There are several important lines of railway now being constructed in Virginia, to facilitate travel and the transportation of agricultural produce to tide water; but we need not stop to name them. It may not be amiss, however, to remark that Norfolk has one of the finest harbors in the world; and that the Potomac, up to Washington city, is more of a *bay* or arm of the Chesapeake, than a *river*. Tide rises and falls some four feet, and the river above the bridge is two miles wide. On the Virginia side of the Potomac is the farm of GEORGE WASHINGTON PARKE CUSTIS, the step-son and adopted child of the illustrious PATER PATRIÆ. This farm contains 1100 acres. We shall take another occasion to describe this fine estate and its farming operations. Its extensive meadows yield two tons of hay to the acre, an article which sells in Washington at from $15 to $20. Think of land within a few miles of the metropolis of the United States, (which is growing rapidly and must soon contain 100,000 inhabitants,) selling at from $7 to $12 an acre! Every acre of this land, with northern husbandry, will yield $30 worth of hay a year. The question may be asked why farming lands are so low in the "Ancient Dominion." This we will answer without fear or favor, according to our own views of the subject.

Forty years ago slaveholders in the State of New York had learned that negroes were worth more to grow tobacco in Virginia and Maryland, than to raise grain in the now Empire State. Obeying the laws of trade, thousands of slaves were carried south, and slaveholding ceased in New York and New Jersey. Now, two-thirds of the slaveholders of Virginia have learned that negroes are worth more to grow cotton, rice, and sugar, at the south, than tobacco and grain farther north. Obeying still the law of demand and supply, thousands of slaves are annually leaving Virginia, and migrating south to grow cotton, sugar, and rice, for the civilized world. Constantly hearing of the fortunes made in Georgia, Alabama, Mississippi, Louisiana, Florida, and Texas, the most enterprising planters of Virginia are leaving their partially exhausted estates for the El Dorado of a warmer climate, where slave labor is worth *two prices*. Can it be otherwise than that the millions of deserted acres in the Old Dominion should be offered to the enterprize of free labor at mere nominal prices?

If all the women in the world insist on having twice as many yards in each calico dress as formerly, and twice as many dresses in the course of a year, who, pray, but Virginia slaves, are to raise cotton enough to supply this incalculable demand? The cotton mills of England alone exported over thirteen hundred million yards of cotton cloth last year, and one hundred and fifty million pounds of cotton yarn. Let the men of fifty who read this article, call to mind how sparingly sugar was used when they were boys, and then reflect a moment on the way in which poor people, as well as rich, now consume this product of slave labor. So rapid has been the extension of commerce, and so great the improvements in the machinery for ginning and the manufacture of cotton, that the world wants, or affects to want a world of cotton fabrics. In short, the day is near at hand when all the slaves in this Republic will either cease to be bondmen, or be employed in the culture of the three great southern staples, cotton, sugar, and rice. Who, then, are to cultivate the northern slave-holding States? Who plant thousands of wealth-giving orchards? Who grow wool and hemp, mules and horses, cattle and hogs, and make butter and cheese, wheat and corn, in the best climate in America? It will be freemen, happily exempt from all the peculiar cares and untold vexations incident to, and inseparable from, the relation of master and slave.

It is a great mistake to suppose that a farmer is thought the less of at the south, in any State, if perchance he tills his fields with his own hands. Mr. Toombs, a member of Congress from Georgia, and himself a wealthy planter, says that one-fourth of all the cotton grown in that State is planted, hoed, picked, ginned, and put up for market, by free white laborers. It is a law of Providence, and one not easily evaded anywhere, that man, whether bond or free, "shall eat bread in the sweat of his face." Citizens that care not to own slaves, but seek to realize an independent living by their own industry, or by hiring help, may do so in Virginia quite as well as in New York. As a general thing, the soil in the former State is not rich, but it is susceptible of easy improvement. It lacks lime more than any other element of crops. There are, however, extensive districts of fair wheat lands, and corn is grown in all parts of the State. Rotation of crops and the art of making money by the dairy business and wool-growing, are little thought of, and less practiced. The climate and the almost spontaneous growth of the best grasses, favor sheep-husbandry and stock-growing of all kinds. The finest sheep that we have ever seen are brought into Washington from Virginia. Col. Ware, of Clarke county, has left with the writer, in the Patent Office, samples of wool from an imported ram, which clips 18 lbs. of wool a year, and weighs 420 pounds. His fat wethers sell readily at from $25 to $35 a head. Being a gentleman of fortune, he buys, regardless of price, the prize rams and ewes at the Royal Agricultural Fair in England, nearly every year; and seeks mutton sheep and long, combing wool.

The demand for good roadsters, not race-horses, is most encouraging to the breeders of this noble animal.

To the man of small means, *fruit culture* promises the largest and surest profit. From the Potomac to the Rio Grande, the consumption of good apples will be limited only by the supply. Pears, peaches, grapes, quinces, plums, cherries, and berries of all kinds, are scarce and high.

The annual expenditure of several millions in this District, (Columbia) by the general government, and the drawing to a focus of so many gentlemen of wealth, and their families, from so vast an empire, operate greatly in favor of skilful farmers and gardners in this neighborhood. Both land and manure are cheap and abundant. It is said, (we know not with what truth,) that the one hundred square miles, or ten miles square, do not contain over one thousand slaves, and these are nearly all house-servants.

Instead of migrating to the far off outskirts of the Republic, her enterprising sons had better come and settle down near her pulsating heart, and reap all the advantages of the best markets on the continent. A thousand dairies can not supply butter and cheese to the cities of Baltimore, Washington, Alexandria, Georgetown, and to the planters engaged in growing tobacco and other crops. Why bring butter five hundred miles south, when it can be better made within an hour's drive of the consumer? We have seen better butter sold in Ohio at six cents a pound, than sells for thirty-one cents in Washington. On the 4th of July potatoes sell at a dollar and a half a bushel. In this climate they should be abundant at a third of the money, at this season of the year.—Garden vegetables are abundant, and generally good; but the supply does not last as skill in the keeping of them would effect, provided skill was possessed by the growers of these perishable commodities. How to keep potatoes, cabbage, beets, carrots, turnips, onions, apples and other fruit, is a science of great importance to all house-keepers. The warmer the climate, the greater the difficulty, and the larger the profit to those that study and master the art. It is knowledge, more than land, that we all lack; although we are apt to crave many acres, while we begrudge the appropriation of a few dollars to purchase the most useful books.

In Virginia, agricultural skill and rural science may command a liberal reward, because the field is large and the laborers few. Prejudice alone keeps honest, enterprising farmers of small means, from growing hay at fifteen dollars a ton on land worth from five to ten dollars an acre, which is now vacant. Potatoes and butter sell at three prices, because it is two small business for planters to produce them. Such defective tillage and husbandry can not long endure, and those that make judicous selections of land in Virginia now, may do better than the best did in New York forty years ago. Negroes are going where their labor is most profitable.

PATENT OFFICE REPORT.—Part II.

CULTURE OF INDIAN CORN.—(ZEA MAYS.)

Of the whole family of cereals, *Zea Mays* is unquestionably the most valuable for cultivation in the United States. When the time shall come that population presses closely on the highest capabilities of American soil, this plant, which is a native of the New World, will be found greatly to excel all others in the quantity of bread, meat, milk, and butter which it will yield from an acre of land. With proper culture, it has no equal for the production of hay, in all cases where it is desirable to grow a large crop on a small surface.

The report of the Ohio Board of Agriculture for 1849, for a copy of which we are indebted to M. B. Bateham, Esq., editor of the Ohio Cultivator, contains many interesting statements in reference to corn culture, made by the officers of numerous county agricultural societies. In Miami county 2,030,670 bushels were grown, at an average yield of fifty-five bushels per acre. Three varieties are cultivated: the common gourd seed, for cattle; the yellow Kentucky, for hogs and distilling; and the white, for grinding and exportation. According to the returns from Greene county, which produced 1,250,000 bushels of corn in 1849, "a regular rotation of clover, corn, wheat, and clover again, is best for corn; and no crop pays better for extra culture." The Harrison County Agricultural Society reports the pork crop at 4,800,000 pounds; and it gave its first premium for corn to Mr. S. B. Lukens, whose statement is as follows:

"The ground had been in meadow ten years; was plowed six inches deep about the middle of April; was harrowed twice over on the 9th May, and planted on the 11th, four feet by two feet. It came up well; was cultivated and thinned when ten inches high; three stalks were left in a hill. About two weeks afterwards it was again cultivated, and the suckers pulled off. About the last of June it was again cultivated, making three times the same way, as it was laid off but one way.

Expense of culture, gathering, and cribbing, was	$17 10
Product 374¾ bushels, at 31¼ cents,	117 10
Profit on three acres,	$100 00"

The evidence on which a premium was awarded was such as should satisfy any one that three hundred and seventy-four bushels were grown on three acres of land, and at a cost not exceeding $17.10, delivered in the crib. This is producing corn at less than five cents a bushel.

Whether the statement be true to the letter or not, it shows conclusively the great value of a *rich soil* for making cheap corn. The Board of Agriculture estimate the crop of Ohio last year at 70,000,000 of bushels. Taking the United States as a whole, probably the crop of corn was never better than in the year 1849. One that has rich land needs only to plow it deep and well, plant in season, and cultivate the earth properly with the plow or cultivator, to secure the growth of a generous crop. On poor soils the case is very different.

To raise a good crop of corn on poor land, and at the least possible expense, requires some science and much skill in the art of tillage. Take the same field to operate in, and one farmer will grow one hundred bushels of corn at half the cost per bushel that another will expend in labor, which is money. It unfortunately happens that very skillful farmers are few in number, in comparison with those who have failed to study and practice all attainable improvements. Men who can grow maize on common soil, place the crop in a crib at from six to ten cents a bushel, and pay a fair price for the labor, need not go to school to learn the practical part of corn culture. There are, however, five or six States in the Union in which this is done. Mr. LUKENS, of Ohio, has told how they do it in that State; and the practice is very similar elsewhere. To produce cheap corn on poor land, one needs a clear understanding of what elements of the crop air and water will furnish, and what they can not supply. It should be remembered that the atmosphere is precisely the same over ground which yields one hundred bushels of corn per acre that it is over that which produces only five bushels per acre. Now, the whole matter which forms the stems, leaves, roots, cobs, and seeds of corn, where the crop is one hundred bushels per acre, is not part and parcel of the soil. A harvest equal to fifty bushels per acre can be obtained without consuming over ten per cent. of earth, as compared with the weight of the crop. No plant can imbibe more of the substance of the soil in which it grows, than is dissolved in water or rendered gaseous by the decomposition of mold.

The quantity of matter dissolved, whether organic or inorganic, during the few weeks in which corn plants organize the bulk of their solids, is small. From 93 to 97 parts in 100 of the dry matter in a mature, perfect plant, including its seeds, cobs, stem, leaves, and roots, are carbon (charcoal) and the elements of water. It is not only an important, but an exceedingly instructive fact, that the most effective fertilizers known in agriculture are those that least abound in the elements of water and carbon. The unleached, dry excrements of dunghill fowls and pigeons have five times the fertilizing power on all cereal plants that the dry dung of a grass-fed cow has, although the latter has five times more carbon, oxygen, and hydrogen,* per 100 pounds, than the former. Although it is desirable to apply to the soil in which corn is to grow as much of organized carbon and water as one conveniently can; yet, where fertilizers have to be transported many miles, it is important to know that so much of the manure as would form *coal*, if carefully burnt, can best be spared. The same is true of those elements in manure which form vapor or water, when the fertilizer decomposes in the ground.

Carbonic acid and nascent hydrogen evolved in rotting stable manure are truly valuable food for plants, and perform important chemical offices in the soil; but they are, nevertheless, not so indispensable to the economical production of crops, as *available nitrogen, potash, silica, magnesia, sulphur, and phosphorus.* These elements of plants being less abundant in nature, and quite indispensable in forming corn, cotton, and every other product of the soil, their artificial supply in guano, nightsoil, and other highly concentrated fertilizers, adds immensely to the harvest, through the aid of a small weight of matter. If a moiety of the elements of bread and meat, milk, fruit, and garden vegetables, annually consumed by the twenty-two millions of people in the United States, and then thrown away, were judiciously applied to the produce of grain crops, the yearly profits accruing would be many millions. In all sections where corn is worth thirty cents, and over, a bushel, great benefits may be realized by the skillful manufacture and use of poudrette. This article is an inodorous compound of the most valuable constituents of human food and clothing. It is the raw material of crops.

It is not necessary to restore to a corn field all the matter removed in the crop to maintain its fertility. A part of each seed, however, ought to be carried back and replaced in the soil, to make good its loss by the harvest.

In every barrel of meal or flour sent to market (196 pounds) there are not far from 186 pounds of carbon (coal) and the elements of water. When a bird eats wheat or corn, I have reason to believe, from several experiments, that over 80 per cent. of the food escapes into the air through its capacious lungs in the process of respiration; and yet, the 20 per cent. of guano left will re-produce as much wheat or corn as was consumed. Imported guano which has been exposed to the weather for ages, often gives an increase in the crop of wheat equal to three pounds of seed to one of fertilizer; while it has given a gain of seven to one of corn, and fifty to one of green turneps.

Chemists have ascertained that the air expelled from the lungs of man and his domestic animals in breathing, contains 100 times more carbonic acid than it possessed when it entered the organs of respiration.

While carbon or coal in bread, meat, potatoes, grass, hay, and straw, consumed by warm-blooded animals, is constantly passing out of the system as carbonic acid gas, the elements of water (oxygen and hydrogen) are also escaping from the lungs in the form of vapor, which in cold weather is often visible. Over 50 per cent. of the solids consumed by man and beast is thus thrown into the atmosphere by a slow, continuous combustion, which generates animal heat. These elements of the farmer's crops fall upon his cultivated fields in rain and dew. Hence, when a pig, or any other animal, eats 100 pounds of corn, and voids by the bowels and kidneys 40 pounds of the matter consumed, these 40 pounds will reproduce, and generally more than reproduce, 100 pounds of corn again. Even this 40 per cent. of the elements of corn may be reduced one-half by skillful fermentation, by which carbon and the elements of water are still further removed, and then reproduce an amount of grain equal to the original. The art and science of feeding cultivated plants being discussed at length in another place, the subject will not be pursued in this connexion.

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* Oxygen and hydrogen form water, or are its elements.

I am indebted to the valuable work of Professor Emmons, published in two quarto volumes, entitled "Agriculture of New York," for the following and many other analyses contained in this report. The researches into the chemical composition of maize were performed by Mr. J. H. Salisbury, in the laboratory of Professor E., and were so thorough and extensive as to induce the New York State Agricultural Society to award a premium of $300 to Mr. S. His investigations fill two hundred pages in the transactions of that society for the year 1848.

A corn plant fifteen days after the seed was planted, cut on the 3d of June, close to the ground, gave of

Water,	89.626
Dry matter,	10.374
Ash,	1.354
Ash calculated dry,	13.053

By the above figures it will be seen that nearly 90 per cent. of the young plant is water; and that, in proportion to the dry matter, the amount of earthy minerals which remain as ash when the plant is burnt, is large. This excess of water continues for many weeks. Thus, on the 5th of July, thirty-three days from planting, the relations stood thus:

Water,	90.518
Dry matter,	9.482
Ash,	1.333
Ash calculated dry,	14.101

(Ash very saline.)

Before green, succulent food of this character is fit to give to cows, oxen, mules, or horses, it should be partly dried. Plants that contain from 70 to 75 per cent. of water need no curing before eaten. The young stalk, cut July 12, gave over 94 per cent. of water. Such food used for soiling without drying, would be likely to scour an animal, and give it the cholic. The root at this time (uly 12) gaJve of

Water,	81.026
Dry matter,	18.974
Ash,	2.222
Ash calculated dry,	11.711

(Ash tastes of caustic potash.)

Ash of the whole plant above ground, 6.77 grains. Amount of ash in all below ground, 3.93 grains.

So late as July 26, the proportion of water in the stalk was ninety-four per cent.; and the ash calculated dry, 17.66 per cent. The plant gained 2136.98 grains in weight in a week preceding the 6th of September. This was equal to a gain of 12.72 grains per hour.

The rapid growth of corn plants, when the heat, light, and moisture, as well as the soil, are favorable, is truly wonderful. A deep, rich, mellow soil, in which the roots can freely extend to a great distance in depth and laterally, is what the corn-grower should provide for this crop. The perviousness of river bottoms contributes largely to their productiveness of this cereal. A compact clay, which excludes alike air, water, and roots—forbidding all chemical changes—is not the soil for corn.

When farmers sell corn soon after it is ripe, there is considerable gain in not keeping it long to dry and shrink in weight. Corn grown by Mr. Salisbury, which was ripe by the 18th of October, then contained 37 per cent. of water, which is 25 per cent. more than old corn from the crib will yield. The mean of many experiments tried by the writer has been a loss of twenty per cent. in moisture between new and old corn. The butts of cornstalks contain the most water, and husks or shucks the least, when fully matured and not dried. The latter have about thirty per cent. of dry matter when chemically desiccated.

COMPOSITION OF THE ASH OF THE LEAVES AT DIFFERENT STAGES.

	July 19.	Aug. 2.	Aug. 23.	Aug. 30.	Oct. 18.
Carbonic acid,	5.40	2.850	0.65	3.50	4.050
Silica,	13.50	19.850	34.90	36.27	58.650
Sulphuric acid	2.16	1.995	4.92	5.84	4.881
Phosphates,	21.60	16.250	17.00	13.50	5.850
Lime,	.69	4.035	2.00	3.38	4.510
Magnesia,	.37	2.980	1.59	2.30	0.865
Potash,	9.98	11.675	10.85	9.15	7.333
Soda,	34.39	29.590	21.23	22.13	8.520
Chlorine,	4.55	6.020	3.06	1.63	2.664
Organic acids,	5.50	2.400	3.38	2.05	2.200
	98.14	97.750	98.187	99.83	99.334

The above figures disclose several interesting facts. It will be seen that the increase of silica or flint in the leaf is steadily progressive from 13.50 per cent. at July 19th, to 58.65 at October 18th.

Flint is substantially the *bone-earth* of all grasses. If one were to analyze the bones of a calf when a day old, again when thirty days of age, and when a year old, the increase of phosphate of lime in its skeleton would be similar to that witnessed in the leaves and stems of maize. In the early stages of the growth of corn, its leaves abound in phosphates; but after the seeds begin to form, the phosphates leave the tissues of the plant in other parts, and concentrate in and around the germs in the seeds. On the 23d of August, the ash of the whole stalk contained 19.50 per cent. of phosphates; and on the 18th of October, only 15.15 per cent. In forming the cobs of this plant, considerable potash is drawn from the stalk; as it decreases from 35.54 per cent. August 16, to 24.69 October 18. When the plant is growing fastest, its roots yield an ash which contains less than one per cent. of lime; but after this development is nearly completed, the roots retain, or perhaps regain from the plant above, over 4½ per cent. of this mineral. Soda figures as high as from 20 to 31 per cent. in the ash obtained from corn roots. Ripe seeds gave the following results on the analysis of their ash:

Silica,	0.850
Phosphoric acid,	49.210
Lime,	0.075
Magnesia,	17.600
Potash,	23.175
Soda	3.605
Sodium,	0.160
Chlorine,	0.295
Sulphuric acid,	0.515
Organic acids,	5.700
	99.175

The above table shows a smaller quantity of lime than is usually found in the ash of this grain. It is, however, never so abundant as magnesia; and Prof. Emmons has shown that the best corn lands in the State of New York contain a considerable quantity of magnesia. All experience, as well as all chemical researches, go to prove that *potash* and phosphoric acid are important elements in the organization of maize. Corn yields more pounds of straw and grain on poor land than either wheat, rye, barley, or oats; and it does infinitely better on rich than on sterile soils. To make the earth fertile, it is better economy to plant thick than to have the rows five feet apart each way, as is customary in some of the southern States, and only one stalk in a hill. This gives but one plant to twenty-five square feet of ground. Instead of this, three square feet are sufficient for a single plant; and from that up to six, for the largest varieties of this crop.

Much has been written in the agricultural journals of the country on the propriety of thin and thick planting. Among the advocates of the latter system Dr. M. W. Philips, of Mississippi, has become conspicuous and is understood to be a successful grower of this great American staple. If one has not a deep, mellow soil on which to grow corn, it will pay well to form such a soil by deep plowing, turning in green crops, and draining, if necessary. Few farmers have ever made themselves rich by raising corn on poor land. There is vastly too much of unproductive soils plowed and hoed in the United States. This practice is bad economy; for it impoverishes the earth, without enriching either the agriculturist or the community. It is so much cheaper to grow 100 bushels of corn on two than on ten acres, that a general effort should be made to bring all corn lands up to the average of 50 bushels per acre.

A writer in the Maine Farmer estimates the quantity of southern and western corn annually imported into that State, for home consumption, at 3,000,000 of bushels. No other population three times as large out of the United States consumes an equal amount of American corn. Maine is a great ship-building and lumber-producing State, which makes her an excellent customer for the grain and meat-growing districts of the Union. The demand for ships, breadstuffs, provisions, ready-made houses, farm implements, and wearing apparel of every kind, for the California trade and market, is operating very sensibly on the agricultural interests of the country. The more its labor becomes diversified, the less danger there is of over-producing any one important crop like that of corn, cotton, or wheat. It will not do for the productive industry of five millions of agriculturists to be constantly employed on a few leading crops, unless the design is to give a great deal of work for a very little pay, and impoverish the land at the same time.

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Calf Story again. — *Eds. Gen. Farmer*:—The calf noticed in your April number, weighing 150 lbs. when twelve hours old, was found to weigh, when two months old, 310 lbs. At four months old, his weight and measure were again taken, as follows: Weight, five hundred and eight pounds; height, four feet; girt, four feet seven inches; length from the horns to the root of the tail, five feet seven inches. He has the milk of one cow only, with pasture. His form as well as his size has been admired by numerous visitors, excelling any steer they have seen. M. Hutchinson.—*King's Ferry, N. Y.*, 1850.

SMUT IN WHEAT, AND THE CAUSE OF IT.

Messrs. Editors:—As you and your correspondents have all "spoken pretty freely" in regard to my theory as to the cause of smut in wheat, it may be expected that I would at least take a passing notice of your objections and theirs; and as my "Old Farmer" friend, of "Oaklands," comes first to take "issue" with me, I will first pay my respects to his article, which being dated in March, must, I infer, have been written before the publication of the last part of my communication, which was not published until your April number came out. Not having seen the last or concluding part, I presume he had not an opportunity of drawing any fair "inferences" respecting the "soundness" of my philosophy in regard to this matter. Besides, as he says he has "never seen smut on his farm, except occasional ears of corn, or a few among his barley"—never in his wheat—I am at a loss how to account for his, as I think, rather positive assertions that smut in wheat "is a fungus, of the same nature as the mushroom"—that it "feeds on the juices of the plant, and destroys the structure of the grain to which it is attached." Has my friend had opportunities of examining it, personally, "under the lens of a microscope," by means of which he could fully ascertain and determine its vegetable character as a fungus plant? or has he based his assertions upon the phantastical imaginings of others, who, not having been practical farmers, probably had not even the limited opportunities and advantages possessed by my "Old Farmer" friend? But it appears to me that notwithstanding all his "sound philosophy" in regard to this matter, he is even doubtful as to the fact that "smut is a fungus;" for he says, "whatever may be the origin of this disease," &c. Now, if "we know it to be a fungus," it strikes me that there is really no propriety in saying "whatever" (or "be it this, or that," origin,) about it.

But let that pass; and allow me to ask my friend how he knows that this supposed "fungus" feeds on the juices of the plant? And if it does, how, or in what manner, (by simply "feeding on the juices," and only thereby diminishing the quantity,) it "destroys the structure of the grain, and changes it to smut?" My friend also says that "we can readily detect it as soon as it breaks forth from the sheath." I have examined a great number of heads immediately before, as well as immediately after, they "broke forth from the sheath;" but I was never able to detect smut until some time (several days) had elapsed after the head "broke forth"—sufficient time, at least, for *my bugs* (if you please) to have produced the effect which I charge upon them. In regard to some of my "Old Farmer" friend's "infallible remedies," he or I must be egregiously mistaken. I have tried very strong lime water as a remedy, by steeping my seed wheat in it twelve hours or more; and I know by experience, which I believe to be the best of teachers, that it did not prevent smut in the produce; nor did wetting the seed wheat and mixing it thoroughly with quick lime—having also tried that experiment. But if common salt brine is all-sufficient to destroy the seed of this villainous "fungus," why does my friend advise to "wash the seed first in pure water," and then "soak it in the brine?" These supposed remedial means may sometimes be serviceable by destroying the egg or maggot of the insect, contained in the smut grains in the seed, and thus (in cases where the insect does not come from some other field or farm,) preventing, in whole or in part, the evil which would probably have occurred if the undestroyed eggs or maggots had been sown in the smut grains with the seed wheat. But, after the experience which I have had, it is not possible for me to believe that any remedial means, by washing, steeping, or other mode of preparing the seed wheat, will be found to be infallible.

Since the above was written, I have seen a second article from the pen of my "Old Farmer" friend, in which he appears to have made an attempt to account for the smut in wheat in a different manner from that contained in his first article. He now appears to be halting in a state of betweenity, or rather in a state of plurality, as not knowing which one of the many absurd theories published by the scores of very "scientific" authors who have *supposed* and *conjectured* in regard to this matter of smut in wheat. Sometimes appearing to be inclined to adopt one, and sometimes another, of those unfounded hypotheses, does he not involve himself in some degree of inconsistency when he says that "one characteristic (of the smut, as well as his other fungi plants,) is, that "they will not grow unless fed with *decaying animal* or *vegetable* matter," and afterwards gravely asks, "who shall say that *growing wheat* can not absorb through its pores or vessels, matter so minute that the unaided human eye can not detect it"? I understand him to say that "smut will not grow unless fed upon decaying matter." Does he mean to have it understood that he believes that smut finds "*decaying matter*" in "*growing wheat*," and that, too, as soon as the head breaks forth from the sheath? I should be much pleased if my "Old Farmer" friend would "define his position" more clearly, and let us know what he really believes to be the cause of smut in wheat.

In regard to the communication of "E. T.," of Batavia, I should not probably have thought the "game worth the candle," had he not, as I think, misrepresented me by saying that I "virtually admit that the grain has formed its shape" before it is changed to smut. If I understand myself rightly — and I think I do—no such admission can be found in my communication. In my third article I stated that the puncture by the insect "*probably* injures the small vessels which would otherwise supply the grains with their proper nourishment, (in whole or in part,) and causes an entire change in the substance of the grain." Also, that "my observations have convinced me that the change in the grain is produced after the earing or heading out, and *while the germ is expanding*," &c. I contend that even this language, fairly construed, would not lead one to suppose that I intended to convey the idea that the grain had "formed its shape," and that afterwards its substance was transmuted into something else; but that the puncture caused the change during the process of the formation of the substance of the grain. But if this language admits of doubt, yet in the latter part of my communication I stated the particular manner in which I supposed the insect produced the smut, as I thought, in perfectly clear and intelligent language. I refer him to that part, and request him to ferret out its meaning, if it is not so plain that "he that runs may read." "E. T." also objects to my theory because "he has never known the pea bug nor his [my] bug to change the pea or berry," &c. Is Mr. E. T. so conceited as to suppose that it is demonstrative proof that a thing is not done, or does not exist, because *he* did not know the fact? He asserts that "we farmers know that the grain of smut is globular." Now "I, for one," have not discovered that it is so; and, upon inquiry, I find that other farmers are as ignorant as I am in regard to the *globular* form of smut grains.

I confess, Messrs. Editors, that *after*, as well as before, I discovered the cause of smut, I did, in the simplicity of my heart, use means as preventive remedies; and it seems that "E. T.," after he supposed he had discovered the cause, was also green enough to use a preventive remedy in sowing only his first quality wheat. And I can not avoid the inference, that he must have been not a little verdant in forming and adopting the conclusion that the "*vitality*, not of the roots particularly, but of the *seed*, to be wanting sufficient to produce good wheat." Until I saw "E. T.'s" communication, I was not aware that seed which had lost, or was wanting in, its vitality, would grow at all; but we can not all see that a thing "looks very like a whale," although our friend may insist that it does. "E. T.," it would seem, was easily satisfied, having tried a single experiment only. But in his account of that, he has, I think, furnished almost irresistable proofs, corroborative of my theory. His third quality wheat being the latest sown, (for he says he "reserved an eighth of an acre to experiment on,") produced "nearly all smut and chess," with some heads with part smut and part wheat.

Now, if his theory be correct, this result seems to be (to say the least of it,) most marvelous, if not miraculous. His seed, which was "wanting in vitality sufficient to produce good wheat," did, however, *grow*, and produce good wheat, though of small size. But the want of vitality in the seed also produced heads with "part smut and part wheat!" This certainly appears to me to be one of the strangest freaks which nature ever indulged in. It surprises me to learn that seed "wanting *vitality* sufficient to produce good wheat," should *grow*, so as to produce smut or anything else. But I confess I should be much more astonished to learn that it would not only *grow*, but, by some "hocus pocus" operation, the sap, which I had always supposed circulated through the whole plant, like the blood in the human body, should so separate itself into parts as to make one grain *good* and another *bad*, in the same head! and that, too, in consequence of want of vitality *(life)* in the seed! Is not all this theory an absurdity? I must conclude that it is, and rest upon my own, which I think rationally accounts for the difference in the produce of the same heads, as well as for the formation of good flour and smut in the same grain, or kernel.

Messrs. Editors, I do not wish you to "regret the necessity"(?) which required you to notice and dissent from my views. I have too long been searching for the *truth* in this matter, to be now afraid of finding it. If I am in error, I shall certainly be much pleased to be convinced of it. You admit that there are numerous instances where insects produce remarkable changes in the growth and appearance of plants. You also say that "smut is so well known to be a parasitic fungus, which will grow as well without a bug as peas and wheat — that it is as philosophical to say that a skipper in a cheese made the cheese, as to say that the egg or maggot of a weevil or 'beetle' produces the food on which it subsists." Now, gentlemen, will you be so kind as to enlighten my benighted understanding, by informing me what relation all this parade of words of "a skipper in a cheese making the cheese," &c., has to anything *fairly* deducible from the premises laid down in my communication? Allow me to request that you will again, more carefully, read that part of my communication relating to this matter, on page 84, in your April number, and then I think you will not again be so mistaken as to accuse me of the absurdity of asserting, or even supposing, that the egg or maggot of any weevil or "beetle" produced the food on which it subsisted.

Now, gentlemen, allow me to ask by what means you know that "smut is well known to be a parasitic fungus"? Did you ever see it as a vegetable seed, even "through a glass, darkly"? Did you ever properly test its vegetative power by planting it with or without wheat? Have you ever *personally* known of an instance in which a "parasitic fungus" plant grew out of the *living matter* of another plant or tree? Or have you not relied on what others, like Henslow, have *supposed* and *conjectured?* If the latter, excuse me for disbelieving the correctness of the authorities.

Well, gentlemen, I admit that "man (sometimes) feeds on (filthy?) mushrooms;" but does he eat them raw, as nature made them? or does he not, like my smut bug, first prepare them for his use? But because "man feeds on mushrooms, and many insects devour parasitic plants, without being suspected of producing them," is it any, the least possible proof, that no insect prepares a nest for its young, and food for itself and offspring, by producing a change in the structure or organization of part of a plant, or tree? Do not the "oak-gall" insect, the "black-knot" insect (of the plum tree,) the honey bee, and many others, "too numerous to mention," by their "operations" produce changes in natural productions, to suit them to their uses and purposes? Indeed, I think you concede the point in admitting that "the instances are numerous where insects produce remarkable changes," &c. I ask, for what purpose do they do these things? For the mere pleasure of doing something remarkable? Or is it not more "philosophical" to suppose that they do these things to fit those natural productions for their uses as nests for their young, and food for their offspring and themselves? What inference do you draw from the facts admitted by you? If the same with myself, as I must suppose you do, why not permit my smut bug, which not only feeds on smut, but makes use of it as a nest and food for its offspring, to come in with those which you admit as "producing remarkable changes," &c.? If, however, my theory is unphilosophical, it appears to me to be infinitely less absurd than that which teaches that "a single smut ball contains some four millions of sporules, [seeds,] each one of which will doubtless grow and produce other millions, under favorable circumstances"!—Why, gentlemen, have you considered the fearful consequences of such a state of things—truly "important, if true"? At this frightful rate of production, it appears to me that this terrific "parasitical fungus" would, in a very few years, smut all the wheat in creation; and totally deprive us of the largest and best portion of our natural bread food!—nay, it must long ago, inevitably, have produced that destructive result; not only in regard to wheat, but as to all the other grains which we use in making bread: for, as I understand the theory, each and every kind of those grains is liable to its attacks, in some form or other. No, no, gentlemen: there is quite too much of the marvelous about this fanciful scheme of nature's mysterious workings in extremely small things; and I can not but be surprised that any sensible, reflecting, practical man, should long believe in the truth of such fantastical freaks of the imagination; unless, indeed, like him who gave as a reason why he believed the story of Robinson Crusoe's adventures to be a true relation of facts, he supposes that "if it had not been *true*, it would not have been printed"!

To your correspondent Jacob Loop, I will take the liberty of saying that I have been engaged in raising wheat as a staple crop nearly fifty years, and have tried many experiments with my seed wheat, by steeping and liming it; sowing very badly shrunk seed, (little heavier than chess;) and also as good, ripe, large, plump, and beautiful wheat as I think man ever saw: and yet the produce of the latter, as well as of the former, was smutty. I believe that if a grain of wheat has vitality sufficient to enable it to grow, it is probable that it will produce good wheat, though perhaps not as much in quantity as the largest, best, and ripest grain. My shrunk wheat grew; and I did not discover that there was any material difference in the product of that and the large, plump, and ripe seed. I have never used seed wheat that was not fully, or dead ripe; believing it to be more certain to grow than that which is unripe. J. H. H.

ELDER.

It is generally admitted, that leaves are to plants what lungs are to animals. I believe also they serve the purpose of organs of digestion. The analogy then, between plants and animals, would lead us to this conclusion, viz: that whatever mode of treatment would be fatal to one, would be fatal also to the other, and vice versa. As the vital energies of an animal are more active than those of a plant, the effect would be more immediate but not more certain. To destroy an animal it is only necessary to destroy the organs of respiration, or to prevent their action; to destroy a plant, do the same, and let the operation be continued inasmuch as the effect is more slow.

The following would be my method of killing "elders:" I would allow them to grow till about midsummer, but not later than till after flowering, or till the berries are partially grown. I consider the root to be at this time in its most enfeebled state, as the plant is now nearly done growing. Now let the bushes be mowed close to the ground; let them dry, and burn them on the spot where they grew. If any new shoots make their appearance, pull them up or cut them off. If any appear on the following spring, repeat the process, but remove them earlier, otherwise the root will acquire strength. I have little experience with elder, but I have some with other plants, and I know that there are few plants to which this treatment would not be fatal, if followed up. I am now experimenting on three of the most difficult subjects of the vegetable kingdom, and have little doubt of success. For a time the destruction of one shoot seemed only to prepare the way for a score of others; but they begin to hold up a little, and I expect soon to see them come up *weak and sickly*, as the root appears to be exhausting itself. If I succeed, I will give you the result. H.—*Down East, July,* 1850.

BEES.—No. 3.

Hives, &c.—I have concluded to take up the *practical* part of my subject without further delay, as this part is of the most importance to the majority of bee-keepers; and if my remarks on this branch of bee-culture are not from necessity considerably extended, I shall resume my essays on the most interesting portions of the natural history of this insect, in a brief manner.

There is no greater error into which bee-keepers generally have fallen, than that of erroneous sized hives. Look where you will, you will in most cases find hives from the size of a box ten inches by twelve to three or four times that size. Again, the *shape* of hives is a matter of great importance. Long, narrow hives, never produce as much box, or surplus honey in the supers, or chambers, as those of a more shallow form; for the reason, that in long hives the bees meet with more obstructions in ascending, and they are often discouraged by the difficulties of forcing their way through some two feet of solid masses of bees, and refuse to work in the chambers at all. On the contrary, hives of about twelve inches in height, with a suitable breadth, give greater facilities for ascending; and more honey is generally stored in the chambers of such hives, than in longer ones. Hives without a *super*, (an upper section to receive surplus honey, free from bee-bread and brood, which being removed produces an annual profit without the loss of the bees,) I consider not worth discussing, and straw hives the worst of all. Bees will do very well frequently in such hives; but if one wishes to obtain a profit and save the lives of his bees, he must discard straw hives and those with no chambers. These hives are as much behind the age as the *wooden* plows of Mexico are behind our most improved patent ones now in use.

After we obtain hives of the right *size* and *shape*, the communication to the chamber is also most grossly mismanaged. Some people make a *single* hole in the center, about *one* inch in diameter! This is the extreme of folly. What man in his right mind, if he had several thousand men employed on a work extending one hundred rods, would cause them to pass through a single passage in the enclosure, with burdens from without, and then disperse to their respective locations of duty? Would he not open numerous ways of access along the whole front, that no hindrance may occur one to another in the pressure of the passage? Most certainly he would.—Now, bees are laborers in miniature, and in their labors require the aid of philosophy and reason to facilitate their operations. Instead of *one* hole, a half a dozen or more should always be made, of at least an inch and a quarter in diameter, or a single large round or square aperture, several inches in width, should be made. I recommend *nine* (inch and a quarter) holes, three in a row.

It may be said, without any fear of being in error, that a hive, the *lower* section of which shall contain more than two thousand cubic inches *in the clear*, is too large; and one with less than fifteen hundred, too small. About eighteen hundred cubic inches I consider should be the solid contents of hives; that is, the lower section, designed as the permanent abode of the bees. I have made them twelve inches square, and I have made them thirteen inches in diameter by eleven inches in height—*inside*, recollect; and for a northern latitude above the city of New York, the latter size is preferable. If you add an inch to these latter dimensions, you might not readily perceive the difference in your success; but in the long run there would be a considerable difference. The object of keeping bees generally, I take for granted, is for *profit*; and the hive that produces the most *swarms* and the most *surplus honey* in the supers, taking a series of years together, is the best without doubt. A hive of large dimensions will not throw off as many swarms as a smaller one, nor will there be as much honey stored in the super. This is a *settled* point; hence we must discard such hives. The queen requires a certain area to deposit her eggs in, and a hive of eighteen hundred solid inches is as near her requirements as can be set down as a general rule, always allowing for the few thick combs that may in some cases be used simply as *store combs*. These store combs, however, are not always constructed; and it would be better if we could adopt some plan to cause the bees to adhere wholly to the supers, as a depository of such combs: but we can not do this in all cases. If the hives be too small, the queen is limited in her labors—there is not so great an increase—not so many swarms—and not so much honey stored.

It is natural for an inexperienced bee-keeper to suppose that a large swarm requires a large hive, and a small one a small hive. This is erroneous. If we merely look to the first season only, it is partially correct; but we should take subsequent seasons into our calculation: and if we do this, we shall never vary the size of our hives, let our swarms be what they may. Even a double swarm, if I could not easily divide them, I should put into a usual sized hive; and if the bees found difficulty in laboring there, I would place a *nadir* under them; that is, a temporary box open at both ends. In the fall, the nadir may be removed by severing the combs with a fine wire drawn through them, when all the bees will be able to enter the hive proper. Supers may be as high as you please, and not interfere with any principle detrimental to the prosperity of the bees; but they should not contain more than one-half or two-thirds the number of cubic inches that the lower section does. If they do, the extra space will be useless. If your hives be from twelve to fifteen inches in diameter, nine or ten inches in height is enough, and of the same diameter as the lower section. Most chamber hives are made in one box the full length, the chamber being formed by a division at the proper distance from the top. One side of the chamber being open, it is closed by a door hung on small butts, with a hook or button to secure it when shut. One or two boxes are then placed in the chamber, with a pane of glass in front, or a small piece of glass only, say enough to cover a hole two inches in diameter, for the purpose of seeing when the boxes are filled. This kind of hive, if made of the proper dimensions, does very well; but they are not as convenient as those made in two distinct sections. The various styles and kinds of hives in use are numerous, and I shall endeavor to give the most of them as extended a notice as my limits will allow.

T. B. Miner,
Author of the American Bee-Keeper's Manual.
Clinton, Oneida Co., N. Y., 1850.

A Farmer should never be so immersed in political matters, as to forget to sow his wheat, dig his potatoes, and bank up his cellar.

DESTRUCTION OF INSECTS—MOLES

MESSRS. EDITORS:—One of the greatest misfortunes to which mankind are subject, is the aversion to study and observation—an unwillingness to abandon old notions, and to learn from the experience of others. We cleave to our prejudices even when our judgment is convinced that we are wrong. It is true, a spirit of inquiry is awakened in some quarters, which augurs a better state of things; but it is equally true that the spirit of prejudice is dominant throughout the land, and is likely to continue, since those who most need light are least willing to receive it.

I have been led to these reflections from reading, in the Rural New-Yorker, an article on the subject of "Birds, Insects, &c.," (to which I propose to reply as soon as I shall have learned the fate of this,) and in the last number of the Farmer a few lines on the subject of "Destructive Insects." The *mole* I have always considered an inoffensive animal. I know he is sometimes accused of doing mischief, but I have no positive evidence of it, although I have been acquainted with him more or less, even from my boyhood. My father never encouraged the killing of the little *black coats*, although they sometimes "plowed his meadows;" for he observed that the meadows did not appear to be injured by the operation, but rather benefited.

I have read two short articles on the habits of the mole. The one was in an English publication, and is now mislaid. I will, however, give you the substance of it as I now recollect it. The writer remarks, that having a small piece of ground very much infested by moles, he was induced to investigate their habits. In the course of the investigation, while digging up the ground, he discovered their store-house. It consisted of a smooth cavity in the earth, filled mostly with *cut-worms* which had been stunned, but not killed, by being slightly wounded in the back of the neck. Whether this was their winter's store, or a supply for their young family, I do not now recollect. I only remember the fact.

The other article is also from an English writer, and being rather longer than I wish, I will abridge it, retaining the author's statements and, as far as possible, his language. "Some ten years ago," says the writer, "when I commenced cultivating the little land I now hold, it was full of wire-worms. My crops were greatly injured by them, and in some places entirely ruined. To remedy the evil, I encouraged *moles* and partridges on my land. Instead of killing the moles, I bought all I could and turned them out in my fields, which were soon, one after another, full of mole-hills, to the great amusement of my neighbors. My fields became like a honey-comb, even among my standing and ripening crops. The worms in my grounds are now all destroyed, and the moles, having nothing to eat, are obliged to emigrate to other lands, and thus get bowstringed by savage men whom they come to serve. The wire-worm is the chief food of the mole. If you doubt it, open the stomach of one, and see. It is a vulgar error to suppose that they root up young corn—they do not trouble it till the worm has first attacked it, and then are blamed for the crime of another. All summer partridges live upon insects, wire-worms, &c.; and consider how many millions a covey of them will destroy in a single summer." The inference from such facts is, that in consequence of our prejudices we are often unjust to animals, at our own cost. H.

Answers to Inquiries.

SCIENTIFIC FARMING.

MESSRS. EDITORS:—While perusing an article in your interesting and useful paper, headed, "A few Facts about Plants, Soils, and Animals," an idea occurred to my mind, by which you would confer an incalculable benefit on *one* of your readers, if not on all, by presenting in the columns of your paper, a table showing the *food* necessary to the production of the different grains, grasses, and vegetables, cultivated by farmers generally in this latitude. By food I mean the different elementary bodies used by the Creator in feeding and forming vegetable and animal substances. The time has arrived when it is as much a sin and disgrace for a farmer to grow poor, sickly, spindling crops, as it is to have his animals in such a deplorable condition; and, for one, I want to know what to feed my crops as well as I know how to feed my horses, cows, and sheep. It is but lately that I became a reader of your valuable sheet; but I would not do without the monthly feast that I draw from its pages for ten times its cost. If you consider this request (for I will present it as one) worthy of your attention, you will satisfy the desire of an inquirer after scientific knowledge, by preparing a table as above spoken of. HENRY D. HOBBS.—*Carlton, Orl. Co., N. Y., July*, 1850.

THE varied and profound science of agriculture is not to be communicated, nor learned so readily, as our esteemed correspondent appears to believe quite practicable. If he is familiar with the principles of chemistry in its application to tillage and farm economy, he possesses great advantages for making rapid progress in the useful art of feeding cultivated plants. But if the language of chemistry, geology, vegetable and animal physiology, is to him an unknown tongue, it will be difficult for us to make him understand the science of rural economy by any short-hand tables which can be published. We will, however, do our best to facilitate his study of a noble profession, which embraces the most sublime truths in the mineral, vegetable, and animal kingdoms. These kingdoms, in the providence of God, meet, mingle, and blend harmoniously together, on the surface of our planet, and not elsewhere above or below its surface.

The matter which forms all rocks, soils, mold, plants, animals, air, and water, is ever governed by immutable laws. As our knowledge of these wise and never-changing laws extends, our control over the material elements that surround us, and feed and clothe our bodies, increases in a geometrical ratio.

Has HENRY D. fully considered the fact that the same sunshine, atmosphere, frost, rain, dew, and snow, fall upon an acre of land that yields but six bushels of corn per acre, as fall upon one which produces a crop of sixty bushels? This is a fact of great significance in the science of agriculture. It admonishes the husbandman not to depend too much on the resources of air, water, solar heat, and light; while he should carefully avoid the opposite extreme, in studying the pasture of cultivated plants. The economical improvement of this pasture will be promoted by investigating the origin of a rich vegetable mold, the consumption of which is the first labor of a thoughtless farmer. A good mold is one that abounds in the elements of wheat, oats, peas, and beans. It differs from poor mold in containing more nitrogen, potash, phosphorus, and sulphur, than the latter possesses. The cheap production of a deep, rich soil, on a surface naturally sterile, is the point aimed at by our correspondent, when he talks about "the food of grain, grass, roots," &c. He delights in seeing fat crops and generous harvests and the growing of such is the true road to agricultural independence.

We have said that a rich mold abounds in nitrogen, which is the base of ammonia, and an important element in both bread and meat. One hundred pounds of dry, lean meat, in the carcass of a dead horse, will yield fifteen pounds of nitrogen, and of course form an exceedingly rich mold. A like weight of wheat will yield two and a half pounds of nitrogen; and therefore, in comparison with the stems, leaves, roots, and solid wood of most plants, will also form a rich mold. One hundred pounds of wheat straw contains but a third of a pound of nitrogen: hence, if it could all be transformed, it would take seven pounds of straw to make one of wheat, and forty-five to form one of horse flesh. But there are worse plants for making rich mold, or the flesh of animals, than wheat straw. Dry water-rotted hemp stalks, and pine saw dust will form poor mold and poorer horse feed.

Clover, peas, and corn, are among the best plants for producing a valuable mass of organic matter in the soil for future use. But suppose one's land is "clover sick;" what then is his remedy? If plaster fails to bring clover, and wood ashes and bones are not to be had, he must try timothy, rye, peas, or buckwheat. With the aid of lime he may probably grow grass and make manure, which will give him corn and other grain. Deep and thorough tillage increases the available food of plants, more than any other one thing of equal expense. The sub-soil is full of genuine manure, if you only make it as fine as the earth in an onion-bed. Deep plowing and liming have cured many a clover sick field in England; and they will do as much in this country. Making meat and saving manure have done much to renovate poor lands. We know several large farmers who grow peas and oats to be eaten by hogs in the field just before they are fairly ripe. All the straw and manure being left on the ground, it is enriched and prepared for wheat, corn or clover. Many injure their farms by making haste to become rich — running their fields closer than their stock of fertilizers will warrant. Such men should read more and labor less. A person is seldom worse employed than when impoverishing the earth.

DRAINING. — PROFITS OF POULTRY, &c.

Eds. Gen. Farmer:—I became a subscriber to your valuable paper at the commencement of the present volume, and seeing your manifest willingness to answer questions, I venture to ask a few. I have only a small farm — about thirty acres improved, or rather worn out. It lies across a ridge, the southern extremity reaching into a deep swamp. The soil is gravelly. The water from this swamp reservoir, which has a very imperfect outlet, leeches its way through this ridge, and bubbles up clear and cold through all the land below the ridge. You know the effect of this.

I can content myself no longer to go upon the old principle — do as father did, — but intend to make my few acres produce as much as the same amount of labor I perform can draw from double the number of acres; and by so doing recommend your paper to my neighbors. But to the question—whether to ditch this land below the ridge, by cutting a ditch below and parallel to it, and thence convey it away through covered channels; or cut through the ridge, and drain the swamp. In order to do the latter, the ditch would require to be only about six feet deep for a distance of about fifty rods, to bring it where the ditch would be run across by the former plan; the remainder of the distance would require a depth sufficient to make the land dry below the reach of roots. To me the draining of the swamp would be of little advantage, as I have but two or three acres of the land, and that I do not wish to clear: neither does the swamp make it sickly, as might be expected.

Another question, with regard to keeping hens. I am tired of having hens run at large; they scratch up the seeds I sow, unless I cover them with brush; and they eat up my strawberries, to say nothing of the damage done to field crops. I want a supply of eggs for a large family. Now, the question is, whether I can afford to build a suitable place for them, barely to supply my own family, better than to pay 8 to 12½ cents per dozen for eggs. If so, will a space 12 by 70 feet, on the west side of barn and sheds, with the upper part of sheds for roosts and nests, be sufficient room for fifteen or twenty? And is there any way to keep them from eating their eggs but by being too spry for them?

If you will have patience to read and answer these inquiries, you will oblige a subscriber; if not, I shall not be disheartened, but experiment for myself.

I will say a few words here, about what I have done and intend to do on my farm. The first step I took in the way of reform, was to build good, substantial fences. Compared with the generality of farms, mine is well fenced — corners staked. This relieves me entirely from anxiety about intruders. I have nearly cleared my fields, and now I am ready to lay my ditches straight, and my furrows straight, and double their former depth. This last is necessary through all this section.

I anticipate being able to send you a respectable list of names for your next volume, and prove myself yours, truly. George T. Cook.—*Madison, Ohio, July*, 1850.

We should think it very advisable to drain the swamp, as you last propose; and as you own but a part of it, perhaps you could get your neighbor or neighbors whose land would be benefitted by it, to assist in the work. Individuals whose farms adjoin, might often engage together in the work of draining, to their mutual advantage. But we doubt whether this would entirely remedy the evil you complain of, and we would advise you, by all means, to drain directly that part of your land where the water "bubbles up clear and cold." This should be done by covered drains. Various plans of forming covered drains we have given in previous volumes of the Farmer; but if Mr. C., or any of our readers need more information than they now possess, on the various modes of forming under-drains, we will give it with pleasure.

We don't wonder that our correspondent is tired of having his hens run at large, scratching up his seeds and eating his strawberries. We got tired of it a long time ago. There is no doubt but every farmer can afford to build a suitable house and yard for his chickens. (We gave a very good plan for a cheap house, in the April number.) To be sure, if he should charge the hens every quart of grain they eat, and credit them with the eggs at about eight cents a dozen, the account might not show much of a balance in their favor; but then there is a satisfaction in having every thing around you, needed for family use. You are always sure of having your eggs fresh, and never have the unpleasant query arise in your mind, as you break an egg at the breakfast table, whether you are to have an egg or a chicken for breakfast. On a farm, too, there is always refuse grain, not marketable, that will keep the chickens needed to furnish eggs for a family. There is another consideration, too, of importance, and we fear generally forgotten; and that is, the value of the manure. It is the most valuable manure — almost equal to guano. We always think the manure pays us for the grain consumed, to be used in our flower and vegetable garden; and we get the eggs for the trouble of taking care of the fowls. This is the way we reckon the profit and loss.

The yard you speak of will be large enough; but if you could build it on the east or south end of your sheds, it would be less exposed to storms. If you are "*spry*" enough to keep your hens from eating their eggs, you will have to be "*spry*" indeed. —

Hens often eat their eggs before they leave the nest. We were much troubled with this in the spring, and tried various remedies. We took what we supposed to be the guilty ones and shut them up by themselves; but those left went on eating eggs, as before. We then extracted the inside from several eggs, and filled the shells with Cayenne pepper, and placed them in the nests and on the hen-house floor; but they eat the shells with evident satisfaction, and only laughed at us for our pains. We then procured several *china* eggs; and the hens, after pecking at them till they were satisfied, gave up egg-eating as an unprofitable business. Since that time we have kept these china eggs as nest eggs, and we have no reason to believe that we have had one eaten since. These china eggs can be procured at most of the Agricultural Warehouses; but any one could form them well enough out of any hard substance. We have made them of chalk; and another mode is to fill an egg shell with plaster of paris, which soon becomes hard. The plaster must be mixed with water, and be about the consistence of cream when poured into the shell. We think it a bad plan to give fowls egg shells, unless they are broken very fine, and even then we would rather supply them with lime in some other form.

GUANO AND LIME.

Messrs. Editors:—With your permission I should like to propose a few queries for solution. Is it profitable for farmers in this vicinity to pay from forty to fifty dollars per ton for guano, to be used in preparing land to seed with wheat? What quantity ought to be put upon an acre? And what is the best mode of applying it? I have a piece of ground that is well seeded to June and blue grass, and some clover, but not enough to do any harm, upon which I design to sow lime. Had I better sow lime before plowing, or afterwards? Or would it be better to sow some before plowing, to assist in the fermentation of the sod; and some after it has been plowed and cultivated so as to mellow it and prepare it for seed? Please answer these inquiries, as soon as convenient, in the Genesee Farmer, and you will much oblige A Subscriber and Constant Reader.—*Orleans Co., N. Y.*, 1850.

If one was sure of getting a first rate article of Peruvian guano at $40 or $50 a ton, it will doubtless pay to apply 250 lbs. per acre in Western New York in growing wheat. Its whole strength is not exhausted in one year, but the second crop will be considerably benefitted by this powerful fertilizer. Large quantities are used in Delaware, New Jersey, Maryland, and Eastern Virginia; and generally with satisfactory results. Some cover it with the plow, others with the harrow or drill. It matters little what implement buries it in a mellow soil; but it should be covered a few inches to prevent the loss of ammonia by solar influence. In England it is found best to apply one half of the guano at or near the time of seeding, and the other half in the spring. In the latter case the manure is covered with a hand or horse-hoe, harrow, or cultivator. In regard to the application of lime, if only a small dose is to be used, spread it all on the grass before plowing. If forty or fifty bushels per acre are to be applied, put a moiety on the grass, and the other half on the inverted sod, which should be well harrowed soon after the lime is spread. The object is to incorporate it well with the soil.

Messrs. Editors:—Is there any remedy for pork after the brine has begun to sour, except boiling the brine. H.—*Down East, July*, 1850.

There is none which is safe.

REVIEW OF THE TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY.—No. I.

We have been favored with a copy of the Transactions of the State Agricultural Society. It is a large volume of 944 pages, got up with great care by the Society's efficient Secretary, B. P. Johnson. The printing of the volume hardy does justice to the matter, and compares unfavorably with the Transactions of some County Societies now before us. It is, however, as well, perhaps better, done than public printing generally. We have long thought the annual volume of Transactions not only very creditable to the Society, the State and the Nation, but superior to any similar European publication. This opinion is corroborated by Prof. Johnston, who, in his address at the last State Fair said, "I have been both interested and instructed by the volumes of the Transactions of your Society, and I have heard them in a public meeting in Scotland most highly spoken of, and favorably contrasted with the published proceedings even of the Highland and Agricultural Society of Scotland." The present volume we consider superior to any of its predecessors; and as but a very few of the many thousands that read the Farmer will ever see this volume, we shall endeavor, in the review we intend to make of the book, to give some knowledge of its contents.

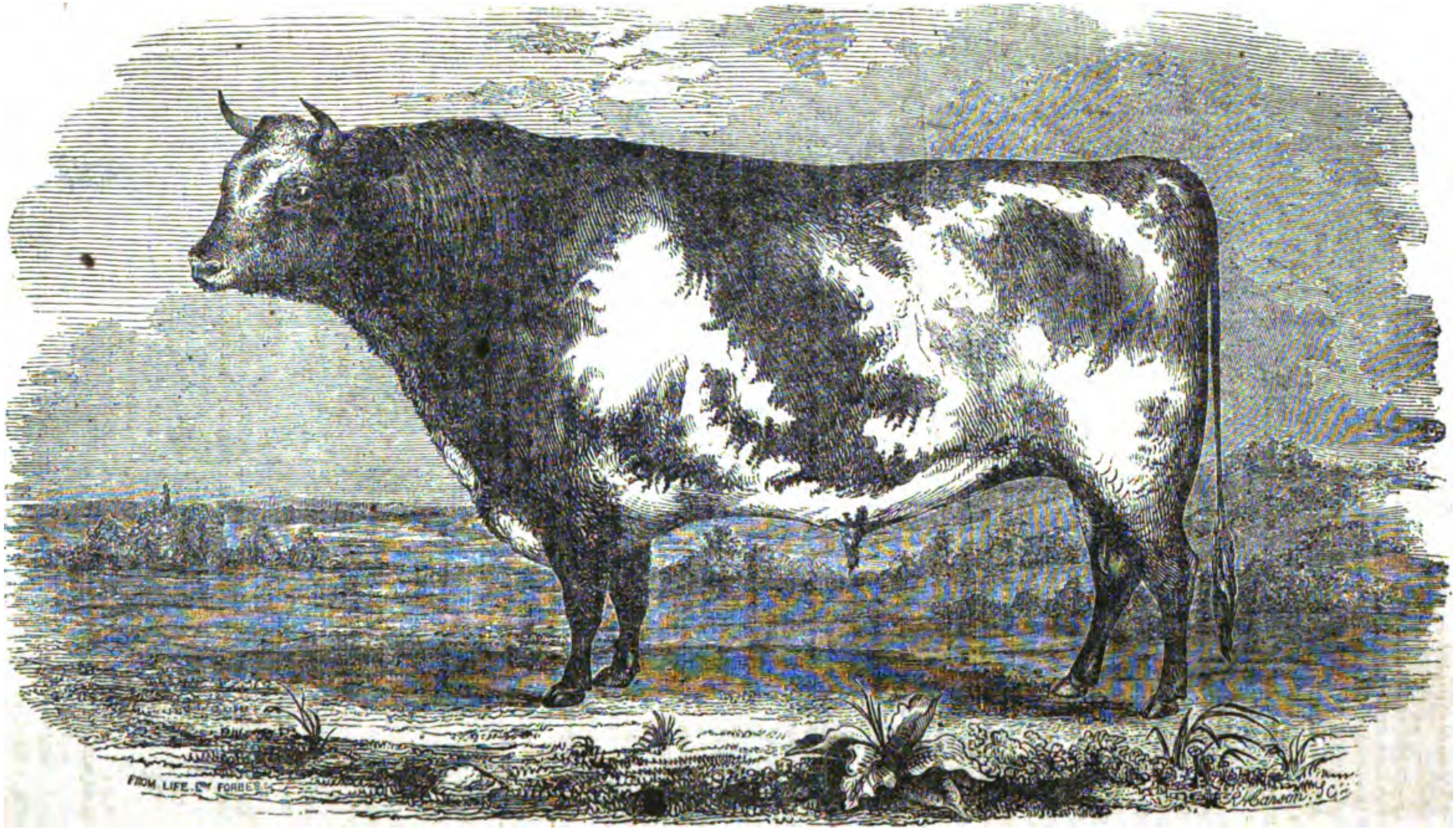
The work commences with the Report of the Executive Committee for 1849. The Committee express their gratification, not only at the successful operations of the State Society, but also of the County Societies in all parts of the State, showing "an increased attention on the part of farmers to the improvement of their farms, and much more regard to economy in their management than heretofore; and also, an adaptation of their crops to the soil so as to secure the best returns which the land is capable of yielding." Although the committee announced the same improvement, in their report last year, and almost in the same words; yet, it is not a stereotyped unmeaning array of words, nor an opinion expressed by them for effect, but it is the words of truth and soberness, as all must be aware who have paid any attention to the present and past condition of agriculture in the State of New York. Houses and lands, sheep and oxen, give evidence of the fact—its truth is proclaimed by abundant crops and well filled barns. The work is progressing. The light of science is scattering the darkness of ignorance—common sense is gaining the mastery over prejudice.

In speaking of the PROFITS OF FARMING, and its ADVANTAGES, the committee make the following truthful remarks:

> Though it may not lead to sudden and enormous wealth, (and it is far from desirable that it should,) still is a remunerative business, and gives, in a pecuniary point of view, a liberal return for capital judiciously invested. That it is an employment best calculated for real enjoyment, best designed for permanent prosperity and security, as well as for the cultivation and enjoyment of all those moral and social qualities that give zest to this world's intercourse, is so apparent, that no argument is necessary to establish it.

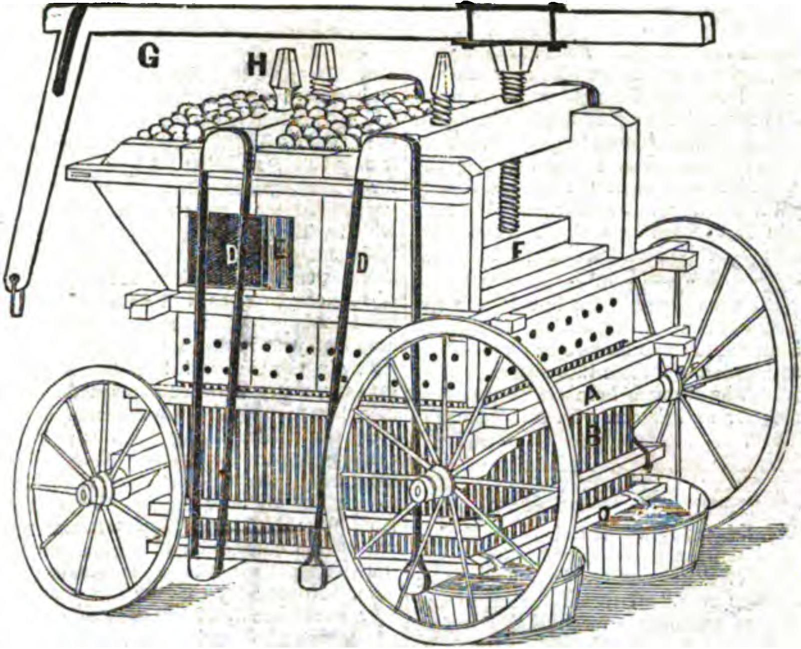
If farming brings not sudden wealth, it brings not sudden poverty. There is not perhaps one year in a life-time in which the intelligent and industrious farmer can not make his farm produce enough to supply himself and family with all the necessaries of life, and all the luxuries good for man.

The engraving of Devon Bull on the following page is copied from the Transactions. We shall resume the subject in next number.



AYRSHIRE BULL, DANDY.

THE PROPERTY OF R. P. PRENTICE, MOUNT HOPE, NEAR ALBANY. WINNER OF THE FIRST PRIZE FOR AGED BULLS, IN AYRSHIRE CLASS, AT LAST STATE FAIR.



CHAPIN'S PORTABBE CIDER-MILL AND PRESS.

CHAPIN'S PORTABLE CIDER-MILL AND PRESS.

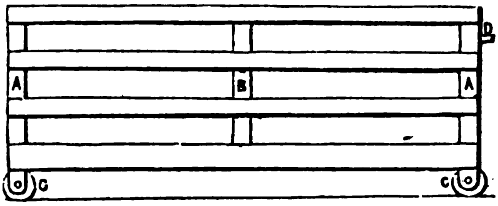
This machine was patented in 1848, but since that time some alterations have been made in the grinding apparatus, with a view of rendering it as perfect as possible. It may be drawn from one orchard to another, and with a man and stout boy will make fifteen barrels of cider a day. The apples are handled but once, the pumice falling into the press crib B, thus forming the cheese, while the apples are being ground. By the action of the screws the cider is forced through the openings in the sides of the crib, and conducted to the tubs by a channel in the margin of the platform, O. When the pressing is finished, the tubs and rear grato B are removed, the platform O is let to the ground, the cheese is drawn out in a body, upon a seperate side platform, under the rear axletree A, and left clear from the mill The sweep G, after turning the screws, is placed upon the center shaft of the grinding machinery H, and the process again commences.

A correspondent in Onondaga Co. writes: "This machine is really an excellent thing of the kind — I truly believe the very best. A man and boy with a horse can easily earn $5 per day (making 15 bbls. at 37½ cents each — $5.62,) for two months."

It is manufactured by N. Chapin, of Syracuse, N. Y. Price for single mills, with a town right, $100.

BARNS AND FARM-GATES.

Messrs. Editors:— I have long been in favor of a large, deep bay to a barn, preferring to *pitch up* more in winter and less in summer, and then it seems as though that side of the barn held about twice as much for it. For a few years I have used one eight feet deep, with logs and pieces of rails, &c., in the bottom, so as to allow the cats room to carry on their useful avocations under it; and my love for the thing does not yet cool by familiarity. The barn is built on ground descending one foot in twelve or fifteen, which answers my purpose better than I supposed so gradual a descent would. The end opposite the bay is raised three feet or more, and has a stable in it. It is dug out under the stable and threshing floor, which is now used for a shed. I have seen such a place used for a stable, the fodder being put into the rack under the bay girt; and when the hay was low, direct from the bay to the rack — a little of the bay being appropriated for the rack and the cattles' heads. But what I value above a good bay, is a good place to put the manure; and I have finally got such a place, under the stable. The stable is so wide, but little dung gets on the the back plank, and with something like a handle to a door-latch and a lever, I turn up the plank and put down the manure about twice as fast as you could throw it out of the windows. It catches much of the urine, and wastes but little to what it would out-doors. The plank next to the back one should be pinned fast, and leave a crack an inch or an inch and a half in width. There is a wall under the outer edges of the stable, and a drain under that, one foot deep, so as to keep it dry under the barn; and a pair of doors back, where I draw out the dung. The yard is not much larger than is really necessary, inclosed by a tight fence six feet high; and when I dug under the barn, I made those parts of the yard that were too level somewhat undulating, and it is pretty dry for such muddy ground.



The above engraving is intended to represent the best substitute for bars that I know of. A, A, scantling, 3 by 4. B, strip of board nailed tight. C, C, wheels, six inches in diameter. To be made mainly of fence boards, and run on narrow plank six or eight inches wide; and the one the gate runs on when opened, should have strips an inch thick fastened on each side of where the wheels run, to guide it. Two stakes firmly set and pinned at the top will keep the gate upright, and two more at the other end may serve to keep it firm without any other fastening than having the pin D run between them. A narrow strip, the thickness of the board D, should be nailed on the upper board its whole length.

This is called a snowy region; but I have not known the snow to offer any very serious obstacle to this gate. I have used three for two or three years, and have sometimes shoved them into a snow drift to get them open. The farmers here prefer this gate to any other, as far as I know. N. N. — *Oswego Co., N. Y.*, 1850.

S. W.'S NOTES FOR THE MONTH.

Suckering Corn. — The last Rural New Yorker says: "We find some persons still adhering to the exploded doctrine of the necessity of pulling off the suckers from Indian corn." I would as soon accuse that pomologist of pursuing an exploded practice, who takes from a tree a part of its redundant fruit, that the remainder may improve in size and quality. I have found from repeated experiments, that corn deprived of its suckers will be some ten days earlier than the unsuckered corn, and the main ears will be larger and better filled. 'Tis true that the suckers bear a "beggarly account" of nubbins, which may help out the bulk of ears; but methinks the suckered stalks will yield enough more in weight of sound shelled corn to make up for the nubbins. I am yet to be convinced that the pollen from the suckers is of other use than to fructify the ears produced by the suckers themselves. So far as fodder is taken into the account, the advantage is undoubtedly with the unsuckered corn: hence I take it, that farmers with large fields and little help will find it to their account to let suckers mature; while he who grows corn for the early green ears, will never fail to cut off the suckers, and remove every barren stalk from his corn patch. Before July had passed away, I had plenty of plump ears of eight rowed, large kernel, white corn, more than six inches in length. This variety has been improved by cultivation from a very short ear to one of fair length; the stalk also increases in size and height; but it also matures later, maugre the precaution of saving the earliest ears for seed.

Free Trade in Bread.—In the death of Sir Rob't Peel the yet struggling friends of commercial freedom in Great Britain have lost an able advocate. Let every American farmer bless his memory, since it was under his ministry, and mainly owing to his unanswerable arguments, that the most odious restrictions on our agricultural productions were removed. While in England every loaf of bread made of imported flour paid a tax to the landlord and the farmer, in these United States the farmer is almost the only great producer who has never yet clamored for a bounty on his industry, by a tax on the other classes. Hence it is that the farmers of these United States are the most self-relying of men. God grant that they may never know the effect of that luxury which is compassed only by selling dear bread to the poor and hungry million!

The Wheat Crop and the Coming Price.—All accounts agree that the present yield of wheat in the United States is above the average of former years; add to this the increased culture of this cereal, and the quantity for sale will be unprecedented. Hence it may be inferred that without an increased demand for export, prices must rule very low the coming year. Let me then enumerate some of the causes which will keep up the price of wheat to an average of former years. In the first place, foreign emigration is steadily increasing, and most of the emigrants of former years, as well as all of the present, will have to buy bread; then the failure of the wheat crop last year in Ohio, the greatest wheat growing State in the Union, led to the exhaustion of every granary, many of which contained the wheat of former crops; then the great increase of villages and cities throughout young America; the great and increasing demand for bread-stuffs induced by our manufacturing industry—not as of old, in New England alone; but all over the length and breadth of our land, from Maine to New Orleans, and the great west. No country on this globe ever had a home trade so rapidly, not to say magically, increasing, as ours. No country so young in years can boast, or ever could boast, of a manufacturing industry so great, extended, varied, and increasing as ours.—Even those cotton lords in New England, who of late have closed some of their mills, confess that the competition from within has become more formidable than it ever was from without. Then the great increase in public works of every kind and fashion—the multiplicity of rail-roads and plank-roads, which employ so many in the construction, and so many in tending and repairing. And then there is the extra trade induced by these facilities.

The Season and the Crops.—The wheat harvest is now over; the crop is large, and it has been generally well secured in spite of the hot weather.—Such a growth of grass, oats, barley, Indian corn, &c., few other seasons ever produced. Those who aver that vegetation within the tropics during the rainy season far surpasses ours, had not observed the rank growth of this season in Western New York. Go into a well tended garden, and see how the vegetables jostle each other; no line of demarkation is observable just now (12th of August) between the beds. Every thing vegetable has not only exceeded its wonted altitude, but both bush and vine have gone entirely over every prescribed limit assigned to them by the best practical experience.—Although we have had much and frequent rains, the present has been everything but a cold, wet summer. All our wet summers before this have been invariably accompanied by cool, cloudy weather. We have had no cool weather this season since the 3d of June.

State Agricultural Fairs.—It behooves the Executive Committees of our Empire State Fair to look well to its interests this year, as the Cincinnati papers promise that the coming Ohio State Fair *shall not be eclipsed*. There is a rife spirit of rural progress in great wheat-growing Ohio, if we may judge from the number and ability of the farmer correspondents of Batham's Ohio Cultivator. If they do invoke the aid of their State Legislature, they put their own shoulders to the wheel nevertheless, as if determined not to be behind their earlier endowed sister, the Empire State.—*Waterloo, Aug.*, 1850.

Horticultural Department.

EDITED BY P. BARRY.

SELECTION OF VARIETIES OF FRUITS.

There are yet in the country a very large number of persons in total ignorance of the quality of the different varieties of fruit, who, if they had made up their minds to plant one hundred apple trees, would not be able to select by name half a dozen really good sorts. The leading idea with such people, when they do think of planting, is, to get *large* trees; and large trees they must have. This class of people are not in the habit of reading this or any any other journal of the sort, and therefore any advice we might offer them on this subject would be lost.

Then there is another class, who, by reading on the subject, have learned to appreciate the importance of having good varieties—the *best varieties*—nothing short of that; and when they sit down to make their selections, they are too apt to forget all considerations but *quality:* and this is an error — a great error; but still not half so bad as the first mentioned. There is but one class of persons in this country, and that decidedly the least numerous, who can allow the single matter of quality to govern them in making selections of fruits; and that is the WEALTHY, who can afford to make extensive plantations for their own consumption. Nothing in the world is easier than for such people to make their choice of sorts. They are not restricted by limited means, or limited grounds. They are at liberty to select those of *every season* and of *every desirable quality*, however inconsiderable it may be.

But not so with those who plant orchards for the supply of the market. No matter how good a variety may be, if it cost as much to raise the fruit as it can be sold for, or if its peculiar texture or short duration render it impossible to carry it to market, of course it would be unwise to plant it. The orchardist wants hardy, vigorous trees, good bearers, and as far as possible, large and showy fruit that, whether early or late, keep well and bear transportation. Hence, for instance, in planting a cherry orchard for marketing, instead of planting the *Belle de Choisy*, which is one of the most delicate and finest flavored varieties, but a small tree and shy bearer; or *Downer's Late Red*, *Amber*, or *Honey*, most delicious sweet cherries, but too tender fleshed to bear carriage: such varieties as *Black Tartarian* and *Napoleon Bigarreau*, though quite inferior in flavor, are preferred; because they are large, showy, productive, firm fleshed, and popular in market. So in the case of strawberries — *Swainstone Seedling* and *British Queen* are the two varieties we should choose first of all, if we had extensive grounds and were growing for our own use. The one is the most magnificent strawberry in the world, and the other large and of the highest flavor. But no man who knows the bearing qualities of these two fruits, would think of cultivating them for market; for neither of them will produce enough to pay for their raising and picking. So again in pears—the *Rostiezer*, *Tyson*, *Seckel*, *Gansel's Bergamot*, and *Winter Nelis*, five of the very finest flavored of all pears, will never be, in this country, profitable market fruits, compared with the *Bartlett*, *Swan's Orange*, *Beurre Diel*, *Duchess d'Angoulême*, and *Vicar of Winkfield*, all inferior in flavor to the first mentioned, but large, showy, productive, of good quality withal, and the trees strong, rapid growers, and early bearers. The *Moorpark* and *Peach* are the best apricots cultivated, not only in size and beauty, but in flavor; yet among several apricot orchards that we know of, having been recently planted for the supply of the market, small inferior sorts, such as the *Breda* and *Early Golden*, have been preferred, simply because they are more certain and abundant bearers. The *Crawford's Early* peach, from its large and showy appearance, has become one of the most popular market varieties. Among the mass of purchasers, in any of our markets, it would command a greater price than the finest and most delicate white flesh variety, every way superior to it. So in plums — the *Green Gage* stands without an equal in flavor; but a single tree of *Bolmar's Washington*, *Smith's Orleans*, or *Imperial Gage*, would yield, if the fruit be carried to market, more than four of the *Green Gage*. The former are all vigorous, rapid growing trees, with large, showy fruit of fair quality, produced in abundance; while the latter is a very slow growing tree, with small fruit of the most delicious flavor.

In the neighborhood of such markets as Covent Garden, in London, (where a *Newtown Pippin* would sell for one shilling, and a *Baldwin*, much larger and finer in appearance, only for three or four cents,) *Green Gage* plums, *Seckel* and *Gansel's Bergamot* pears, *Swainstone Seedling* and *British Queen* strawberries, might be grown to advantage; for there the best articles sell for their value, whatever it may be. If one variety be, from the difficulty of raising it, and its superior flavor besides, worth even three or five times as much as another, it will surely obtain it. Not so in most of our markets. Here, for instance, any one of the men and boys who sell cherries might stand a whole day with *Belle de Choisy* without selling a single measure, while in the same time he would probably sell a bushel of *Black Tartarian*. Now a quart of *Belle de Choisy*, from its high flavor and delicacy of texture, and from the comparative small size and produce of the tree, is worth three times as much as *Black Tartarian*.

We remember hearing a gentleman in one of the Pomological Conventions declaim, indignantly and vehemently, against the practice of growing and selling varieties anything short of *first rate in flavor*, no matter what their other peculiar excellences may be, or however popular in market. He said if public taste was so bad as to create and sustain a demand for second rate flavored fruits "it ought to be corrected," &c., &c. Now this undertaking to correct the public taste would not be a small affair. If the fruit grower is bound to correct the tastes of his customers, so may every other man engaged in furnishing other necessaries and luxuries of life.—The wine merchant must utterly refuse to sell such trash as port and sherry, telling his customers they must drink only the best champagne and burgundy; the grocer must insist on his patrons using only the best refined loaf sugar; the butcher, the baker, and the confectioner, too, must all wage hostilities against mediocre articles. Thus we should have everybody busy correcting other people's tastes — making fools of themselves, and damaging, very materially, the interests of their pockets.

It seems to us a tolerable good plan for those who grow fruits for market, to select such varieties as promise to yield the greatest profits — to consult the tastes and circumstances of the fruit buying portion of the community as they are, and not as some people might think they ought to be. The *season of ripening*, too, must be well considered by the orchardist who plants for profit. In some localities, early summer varieties find such ready sale and good prices as to be highly profitable, while in others they are comparatively worthless. The value will be the greater the nearer they are to a large town, as early fruits can not be carried a very great distance. Land in the vicinity of New York, for instance, might be much more profitably occupied in producing summer crops that require to be immediately consumed, than such as ripen in the winter, and may be transported thousands of miles. The people of Western New York can send their fall and winter apples and pears to New York, and offer them in market in as good condition as those grown within a dozen miles of that city; but we can not so well send our strawberries, cherries, currants, gooseberries, apricots, early plums, and peaches. The sale of such fruits must always depend on markets comparatively local. Such matters as these are worthy of attention by those who are about planting extensive orchards for marketing.

Those who grow fruit for their own use alone, must be guided by very different considerations from the orchardist. His fruits are to be carried to market — they have to go through the processes of packing, transportation, &c.; while the fruit grown for home use has only to be gathered and placed on the table or in the fruit-room. In one case, a barrel of second rate fruit, of large size and showy appearance, will be more desirable than a bushel of first rate quality; while in the other case it would be just the reverse. In one case, tender, rich, delicate fruits, would be quite unsuitable; while in the other they would be precisely what would be wanted. The selection the most suitable for a profitable orchard would be a very improper one for an amateur, or one cultivating solely for his own use. Many people do not appreciate the differences; and on hearing of a certain orchardist having planted a few select varieties, they at once jump to the conclusion that they are the best, and so must get them.

The different circumstances in which different persons are situated, should have a great influence on their selection of the varieties of fruits. As we remarked in the beginning of this article, the man of wealth, with extensive grounds and facilities of all sorts, may indulge in the culture of whatever is curious or novel, or that may possess any one desirable quality. Then there are those with limited grounds, who care little for the actual value of the fruits they may grow, looking more to the interest and amusement their trees may afford them. In such a case, a great variety will be most wanted. Those who have small gardens, and wish to turn them to the best account in the way of fruits, will merely look to a variety sufficient to fill up the various seasons, taking care to have the best and most profitable of each. The most difficult selection of all to be made, is that for a small garden; and it depends so much on local and personal circumstances, that no definite advice can be given on the subject. One man's taste will run more for one species of fruit than for another. In one place apples, for instance, may be so cheap as to make it no object to occupy a small garden with them; in other places it may be different. In all cases the value of a fruit garden or collection of fruit trees depends greatly on the selection of varieties. The two extremes of having too few and too many varieties, must be equally avoided, and all the qualities that are combined in a good and profitable garden fruit, be taken into careful account.

THE CURRANT.

It would appear almost unnecessary to offer any suggestions on the culture of the currant. It is so exceedingly simple, that everybody is supposed to understand it thoroughly — and we will grant that they do; but how many put their knowledge into actual practice? The appearance of the currants usually sold in our markets, and the appearance of them on the bushes in gardens, generally answers this question satisfactorily.

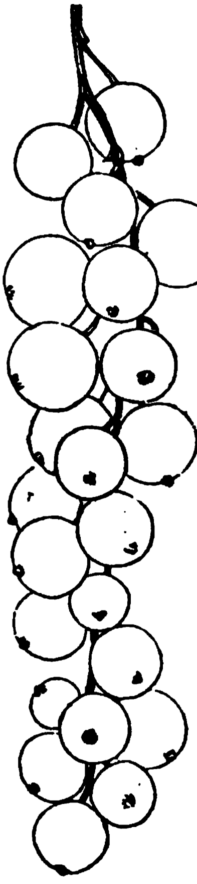
A neighbor of ours, a few years ago, had a dozen or two of currant bushes in his garden, of the Red and White Dutch varieties, and by a proper system of management, his fruit attained an extraordinary size, and were much finer flavored than people generally had ever seen currants before. Indeed, they were to many quite wonderful, and "slips" of them were begged by those who had the very same varieties in their own gardens, in a starved, neglected state.

A few years ago, Col. Stoddard's Alpine strawberries set the whole strawberry-growing community crazy, they were so enormously large and productive. Hundreds, and even thousands, of persons who had the very same varieties in their own gardens, paid the most exhorbitant prices for them. A year or two of experience taught people that *good culture* was the whole secret.

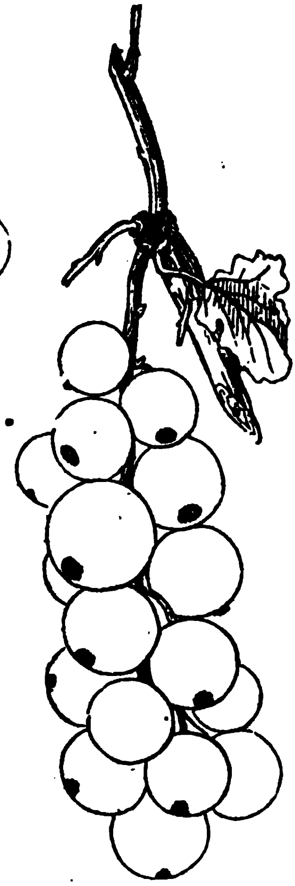
The culture of the currant is simple, beyond a doubt; and so is the culture of Indian corn: but its simplicity is no reason why it should be neglected or badly done. On the contrary, it is a very good and sufficient reason why it should be well done.

The currant bush should have a clean stem of eight inches to a foot from the ground, on which no shoot or sucker should at any time be permitted. Then the head should be kept open, so that the sun and air may have full access to every part. Currant bushes left to themselves have, as will be observed by looking at neglected specimens, the center of the head crowded with small, weak shoots. These produce small, miserable fruit themselves, and injure that upon all other plants. The true way is to keep every branch at a respectable distance from its neighbor, and the center quite open. The main branches should be shortened, too, a few inches at every winter pruning, and this keeps the head of the bush compact, and augments its vigor and productiveness.

Then as to the soil. It is quite useless to expect a currant bush that has stood in the same spot for two, three, or four years, without manure, to produce anything but small, unpalatable productions. A dressing of manure must be given *every season*, either in fall or spring. This and the pruning above mentioned should be as regular as the return of the seasons. The distance between the bushes is worthy of note. Many people plant their currant bushes in a sort of *hedge row*, in some place "unfit for anything else"—perhaps under the shade of some other trees. It is very well to have all the corners of a garden filled up—we like to see it so; but a fruit so useful as the currant, should not be crowded into dark corners. The plants should have an open border, and not be closer than four feet, unless in very small gardens, where they might be kept in a dwarf form. The fruit at best is acid enough—in the shade it is particularly so. It is only where it enjoys unobstructed the heat and light of the sun, that it attains perfection in size and flavor.



VICTORIA.



CHERRY.

In the production of new, improved varieties of currants, very little has yet been done; but the subject seems to attract some attention now. In small fruits, *size* is a most important consideration. A great deal has been effected in the production of large gooseberries, and we know of no reason why the currant may not be equally improved. The fact that new large varieties have been already produced, shows it to be susceptible of improvement. The large Red and White Dutch are as large again, almost, as the old common sorts. Some other recent varieties are still much larger than they. But to those who cultivate badly, all are alike—the worst will prove just as satisfactory in the end as the best.

The following new varieties have fruited with us two years, and we can therefore speak of them from actual experience:

The Cherry Currant.—This is a variety introduced a few years ago from France, very distinct in fruit and foliage from all others, and decidedly the largest of all currants yet known here. The bunches are very short, the number of fruit in each bunch seldom exceeding ten or twelve. Fruit very large—often over an inch in circumference. The outlines annexed were made with great accuracy from an average sized bunch, taken from plants under ordinary nursery culture, quite inferior to that which it would receive in a well managed private garden. It is of a deep red, and ripens about the same time, and are similar in quality to, the Red Dutch. The plant is remarkably vigorous. Shoots stout, short-jointed, and stiff, with large, thick, deep green, slightly folded leaves. Cole says: "It is a poor bearer, not worth cultivating." We apprehend he has passed a hasty verdict. We call it a good bearer—an abundant bearer. The bunches are not so long, nor the fruit so numerous, as in the Red Dutch and some others, but this is easily accounted for in the size.

Victoria.—This is also a new and very distinct variety, both in fruit and foliage. The bunches are remarkable for their length, frequently measuring six inches, and numbering thirty fruit and upwards in a bunch. The annexed outline is accurately made from an average bush—size in all respects mathematically correct. The plants under ordinary nursery culture. The fruit is in size between the Dutch and the Cherry. The color is a very light, beautiful red; and in season it is later than any other—in fact, they are now in fine condition on the bushes, (August 20th,) and to all appearances will remain much longer. The wood is stout, but less so than the Cherry. The foliage is dark colored, thick, and flat, or a little reflexed or turned backwards at the edges.

White Grape.—This differs from the White Dutch in being very much larger. The bush is more spreading in its habit, has thicker, darker, and flatter foliage. It bears in the greatest profusion.

Knight's Sweet Red is a degree milder than the Dutch; in other respects it seems little better.

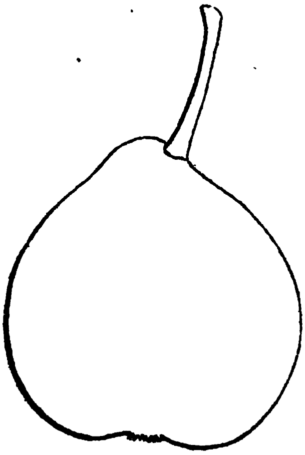
* * *

"Red Astracan" and "Northern Spy" Apples.—Mr. Barry:—I thank you for the "Red Astracan" apples you were so kind as to give me, and am delighted to find them so fine a fruit. They are beautiful in color, very delicate, crisp, and juicy; and being early, are a most desirable variety. I am pleased to tell you that I have made my annual visit to the twenty-three "Northern Spy" trees of Mr. Hand, and found them well laden with fruit. The apples are about half grown now, and are looking fine. I have engaged one hundred barrels of the fruit. I wish all the doubters, as regards the thriftiness of the growth of the tree, its productive qualities, beautiful form and quality of the apple, could see them. One nurseryman who went with me, exclaimed that the growth of the tree was greater by one-third, than that of any other apple trees he had seen. *He* is a "convert" at least.

The fruit generally will not equal the crop of 1848; but Western New York will produce a fair quantity, and of excellent quality, this year. J. H. Watts.—*Rochester*, 1850.

MUSCAT ROBERT PEAR

This nice little early pear, though an old variety, is very little known. We do not propose to commend it for general cultivation; but in large or moderately large collections, it is certainly desirable. It is decidedly superior to *St. John's* or *Little Musk*, that precede it, and nearly equal to the *Madelaine*, which ripens about the same time.—Downing says "it might be called first rate, if we had not the *Bloodgood* to compare with it;" but it is quite over with us before the *Bloodgood* begins to ripen. The tree is a strong, handsome grower, one of those so distinct in appearance as to be easily recognized among a thousand others by its wood and foliage. The shoots are stout and quite yellowish. Leaves flat, broad, and coarsely serrated. Fruit small, about an inch and a half long, and the same in diameter at the widest part. Form obovate, or top shaped, regular, tapering to a point at the stem. Skin greenish yellow. Stalk moderately stout, an inch long. Calyx large, open, not sunk. Flesh white, crisp, juicy, and sweet, with a slight musky flavor. Tree very vigorous and productive; succeeds well on the quince. Beginning of August.



TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY, FOR 1849.

We are indebted to B. P. Johnson, Esq., the Secretary, for a copy of this great volume. It numbers nearly one thousand pages; being, in fact, an agricultural library in itself. It gives us the proceedings of all the meetings of the Society: full and detailed reports of all committees; transactions of forty-six county societies; discussions and communications on various subjects; Prof. Johnston's Lectures; and Prof. Norton's work, The Elements of Agriculture, complete: the whole arranged in the best manner for reference, and illustrated with ten or twelve beautiful engravings, including the Show Grounds at Syracuse, Floral Hall, various animals, besides outlines of fruits, implements, &c.

This is by far the most important volume the Society has yet published, and affords most ample proof of the great influence it is exerting on the agriculture of our State. Mr. Johnson is entitled to the highest credit for the industry, taste, and judgment which he has brought to bear in the collection and arrangement of such a vast amount of material. The contents will be reviewed at length in the Agricultural Department, and it will, therefore, be unnecessary for us to say more.

The committee on Fruits, of which Doct. Herman Wendell is chairman, suggests the following varieties as worthy of being added to those heretofore recommended for general cultivation:

Apples—Domine, Wine Apple, and Peck's Pleasant.

Pears—Doyenne d'Ete, Andrews, Flemish Beauty, and Urbaniste.

Plums—Madison.

Cherries—Knight's Early Black, Graffion, Black Eagle, and Downer's Late.

Peaches—Oldmixon Freestone, Bergen Yellow, and Crawford's Late.

Gooseberries—Woodward's Whitesmith, Crown Bob, and Green Walnut.

Currants—Knight's Sweet Red, White Grape, and May's Victoria.

Raspberries—Fastolff, Franconia, and White Antwerp.

HOVEY'S SEEDLING STRAWBERRY.

Mr. Editor:—I procured twenty-five small plants of *Hovey's Seedling* strawberry, from the garden of Col. Young, of Ballston, four years ago. From a bed of these plants, 25½ by 18½ feet, I have this season picked 47½ quarts of most delicious berries. Their size varied from 1½ to 3⅝ inches in circumference. The vines in my bed were of two and three years growth. They were first planted in rows about 18 inches apart each way. The runners were permitted to catch and grow, until the vines covered the ground. They were then thinned, so that the plants stood about four inches apart. They were hoed once in the spring, the ground loosened pretty deep with the fork end of the garden hoe, and a coat of compost made of fine barn-yard manure and lime, was spread on the ground around the plants, half an inch thick. This is all the care they require. I do not cover them in the winter.

From their flavor, ease of cultivation, hardihood, and yield, I would recommend *Hovey's Seedling* as the best strawberry that can be raised in our country, as far as my experience goes. Henry Palmer.—*Groom's Corners, Sar. Co., N. Y., Aug.*, 1850.

DOUBLE BALSAMS—"LADY'S SLIPPERS."

Very few people know how really perfect and beautiful these flowers may be grown. On the 11th of August we noticed a dish of them from Prof. Hill, of Rose Cottage, in this city, the best we have ever seen—large, perfectly double as the finest rose, and of almost every shade of color—striped, mottled, and marked with endless variation. Whatever Mr. Hill does, he does it not only *well*, but in the *very best manner*. His melons and tomatoes are always unrivalled; and his rose pillars, his trellises of morning-glory and cypress vine, and the lawn about his cottage, are all models so well managed in all respects, that the first conclusion we arrive at in seeing them, is, that they can be no better.

We know of no such small place as Mr. Hill's; and we advise those who wish to know how many beautiful and excellent things can be produced, and how much taste displayed on a small city lot, to visit Rose Cottage, on Bowery-st., Rochester.

Answers to Correspondents.—Mr. Joseph Pennington, of Macon, Mich., writes us that in the fall of 1847 he was in Rochester, and saw a large red apple "similar in shape to the *Yellow Bellflower*, but two or three times as large." It was said to have been brought from the town of Greece. Mr. P. wishes to know its name and qualities.

We know of no apple two or three times the size of the *Bellflower*, of any shape or color. The largest apples that usually make their appearance here in the fall, are the *Cabashea* and *Twenty Ounce*, both magnificent, showy, red apples. The former is coarse and of poor flavor; the latter is of good quality, excellent for baking, and keeps through January. Both are very productive.

Ladies' Department.

TREATMENT OF CLIMBING ROSES.

There is now "a rose tree in full bearing" at Whitestown, Oneida county, which measures 42 feet in height, and bears upon its branches 700 roses and 200 half developed buds. So says the Utica Gazette, and challenges the world to equal this floral wonder.

The above we have seen in several papers. We have no disposition to beat anybody, but we think we have some roses that are fine for their age. Running up the front of our cottage we have three Creeping or Running Roses, that during their season were much admired by all who saw them. Passers by would stop and wonder, and many were the inquiries made "where such roses could be had."—Many applications have we had for "*slips*" and "*roots*," as though they were some peculiar and rare sorts. Our answer invariably was, "You can get them at any of the nurseries for *two* or *three* shillings each." Persons who undoubtedly had seen the same kinds a thousand times, and perhaps had them in their own garden, would often exclaim, "I never saw such roses." One of them is the common *Red Boursault*, or *Multiflora*, as it is commonly called; one the *Queen of the Belgians*, a white Ayrshire Rose; and the other the *Queen of the Prairies*. They were planted in the spring of 1848, though so late as to make but very little growth that summer. In the spring of 1849, strong shoots started from the roots, when we cut away all the old wood and preserved four or five of the strongest shoots, carefully training them to the house. The growth of these young shoots was from twenty to twenty-five feet—the shortest growth was twenty feet—some of them going to the roof of the house, and hanging pendant from the cornice, appearing like drooping roses.—Thus the house was nearly covered with strong, straight shoots, which blossomed this year very abundantly. The idea of counting them would have been almost a hopeless task. As fast as the flowers faded they were cut away, and now vigorous shoots are being thrown out, some of which we shall preserve, to extend to the cornice those shoots that did not reach it last year. Some of the side shoots we shall train where they are required to cover the entire front, when they will be shortened; others we shall cut away altogether. There was nothing remarkable about the treatment of these roses. When they were planted, we made a large hole and filled up the greater part below and around the roots with turf from an old pasture, which we intended should rot and form a good mold for the roots by the time they extended to it. We then placed the roots in the hole and filled up with fine garden mold. Since that time we have supplied them with manure from the hen-house. In the spring, when we saw the buds putting out so liberally, fearing they would tax the strength of the plant too much and not liking to thin them, feeling it would be the worst of sacrilege to destroy so beautiful a flower in the bud, we manured them liberally with liquid manure, made by putting something like a peck of hen manure in a barrel, about the size of a flour barrel, and filling up with water. This stood about twenty-four hours, being several times stirred, when it was freely applied to the roots. This was in just the condition to be taken up by the roots, and the plants were thus enabled to bear thousands of beautiful blossoms without overtaxing their energies and injuring their growth.

ENGLISH LADIES' SPORTS

We have occasionally spoken of the advantages of out-door exercise in securing health and happiness, and endeavored to excite in our fair readers a love of nature. Those who really love nature will often be found in her temple—they will worship her there. We have often, too, spoken of the custom of English ladies, who pride themselves on their skill in cultivating fruits and flowers, rearing poultry, &c. We have recently met with an article in an English paper which we thought we might copy to advantage, as illustrating the facts stated. But we have not spoken from the opinions of others, nor from newspaper reports, as we have told only what we have seen for ourselves.

Bantams—*Sport in the Drawing Room.*—On Saturday, the 1st of December, Beacon Lodge, the residence of Mr. and Mrs. Berkeley, was opened for the reception of visitors to witness a show of beautiful bantams, the property of the Marchioness of Hastings and the Hon. Mrs. Berkeley, for a prize. The smallest bird to be adjudged the winner. Three two years old hens to be shown by each lady. A diminutive hen, weighing only nine ounces and three quarters, the property of Hon. Mrs. Berkeley was adjudged the winner. Among the guests who partook of the hospitalities of the table, were the Marchioness of Hastings, and Capt. Yelverton, Col. and Mrs. Clinton, Maj. and Miss York, &c.

The variety of Bantams exhibited is not stated, but we suppose it to be the *Sebright*, as we believe it is the smallest and most beautiful yet known, a very fair representation of which is given in the engraving.—They are named after Sir J. Sebright who is said to have originated the variety. Dixon gives the following musical description: "pretty, certainly, and very smart, but shamefully forward in his ways. His coat is of a rich brownish yellow; almost every feather is edged with a border of darker hue, approaching to black. His neat, slim legs are of a light lead color; his ample tail is carried well over his back. He is upright as a drill serjeant."

Manners of American Ladies.—At the late great Fair of the Royal Agricultural Society, held at Exeter, England, as is usual on such occasions, a number of of shows and exhibitions of various kinds were present, to take advantage of the facilities afforded to make a little money by the gathering of so great a crowd. Among the rest was a *Troupe* of *American lady Equestrians.* Some of the editors, it appears, gathered from the exhibition some new ideas of the manners and customs of American ladies, not yet in the books. The following extract is from the *Western Times:*

> We hope that these fair equestrians are not a sample of the riding habits of the fair ladies of America, for it would be very alarming to see a lady spring upon the back of a horse and gallop, all standing, through the streets of New York—and yet a traveller endeavored to assure us that that was the general custom of the American ladies.

Editor's Table.

New York State Fair.—Though the New York State Fair is only a *State Fair*, yet the fact that the New York State Agricultural Society, under whose direction the Fair is held, is the most efficient society in the Union, has given the Fair of this State something of a national character. Individuals from all parts of our own, and from other countries, come to this great festival as the great *American Agricultural Fair*. Other States may ere long rival it, and take away this national character. In the mean time we are happy that its lofty position is well sustained, and that the **Society** and its **Fair** is an honor to our whole country. The next exhibition is to be held at Albany, on the 3d, 4th, 5th, and 6th of September. The grounds belonging to the Bull's Head Tavern, on the Albany and Troy road, have been selected. The buildings and other arrangements are completed or in progress, and they are on an extensive scale. Everything possible will be done by the officers of the Society for the accommodation of articles exhibited, and for the comfort and convenience of those attending the Fair. We have every reason to suppose that it will be equal, if not superior, to any previous one.

Persons attending the Fair will be carried on all the railroads, we believe, at half price; and stock, implements, &c., free. Persons in this section desiring information in regard to the starting time of different trains, &c., can correspond with **James P. Fogg**, of this city, who will do all in his power to facilitate the forwarding of articles designed for the Fair. Hay, litter, and water for the stock will be furnished on the Fair ground without charge. The following is the order of arrangements as published by the Society:

Monday, Sept. 2d. Entries to be made at the business office on the show grounds at the Bull's Head, between Albany and Troy, and articles arranged.

Tuesday, 3d. Stock, implements and articles received at the show grounds from 8 o'clock until 5 P. M.

Wednesday, 4th. The grounds *to be open* to the *Judges, Exhibitors, and members* only, from 9 o'clock until 5 P. M.; admission fee $1. The Judges will be called at the Society's Tent at 12, and proceed immediately to the discharge of their duties.

Thursday, 5th. The grounds *will be open to the public* from 8 o'clock until 5 P. M. Single admissions *one shilling*. Members' tickets $1, which allows the member, his wife and family under 21 years of age, admission during the show. The Judges will deliver their report to the Secretary at the business office by 12 o'clock this day.

Friday, 6th. Grounds open to the public from 8 o'clock until 5 P. M. The Address will be delivered on the grounds at 2 o'clock, P. M., by Prof. **Amos Dean**, of Albany. The awards will be immediately announced after the Address, and premiums paid at the business office as far as practicable, and on Saturday, at the Agricultural Rooms in the city.

The Rooms of the Executive Committee will be at the Delavan House where guests of the Society, and visitors and delegates, are requested to call.

Committee of Reception and Arrangements at the Fair in September—E. P. Prentice, President; J. P. Beekman, Geo. Vail, John A. King, Ex-Presidents.

Superintendents upon the Grounds—*Cattle Department.*—Lewis G Morris, William H Sotham.

Horses.—J. B. Burnet, Gen. J. T. Blanchard.

Sheep.—J. McD. McIntyre, H. Blanchard.

Swine and Poultry.—Z. C. Platt and T. C. Abrams.

Floral Hall.—A. Thompson, M. D., Herman Wendell, M. D., W. A. McCulloch.

Domestic Hall.—Oliver Phelps, E. C. Frost, D. D. T. Moore.

Dairy Hall.—Nelson Van Ness, Joseph Cary.

Implement Hall and Grounds.—A. Van Bergen, H. L. Emery, N. B. Starbuck.

Entrances and General Superintendence of Grounds.—H. Wager B. B Kirtland and Gen. J. J. Viele.

Machinery, &c.—C. C. Dennis and L. B. Langworthy.

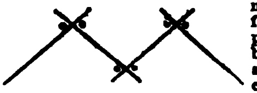
Musical Exhibition.—The Albany Harmonia Society will perform on the evenings of the 3d, 4th, 5th, and 6th, **Haydn's** celebrated "*Oratorio of the Seasons*"—the most appropriate that could be selected for the occasion. **Thompson's Seasons** is truly the *Farmer's Song*, and we anticipate a rich treat. We understand the best musical talent of the country has already been engaged for the occasion. The officers will accept our thanks for their complimentary invitation.

* * *

The Upper Canada Agricultural Fair for the present year being held at Niagara, the 18th, 19th, and 20th of September, in the neighborhood of Niagara Falls, will undoubtedly attract a large concourse of people. Those who have been waiting for a convenient opportunity to see the great falls, should embrace this occasion to attend the Fair, and see this great natural wonder.

A Half Day in East Wayne County—Mr. Watson's Farm.—Our readers will recollect an article in the last number, headed, "A Half-Day in East Wayne County," in which mention is made of the farm of **Joseph Watson**, of Clyde. We have received the following from friend W.:

Messrs. Editors:—Allow me to speak of *one* item "peculiar to this farm," alluded to in a communication of R. G. P., of Palmyra, in the August number of the Genesee Farmer. I took the hint of *this peculiarity* from a communication in a back volume, page 45, February number, 1848, from S. H., of Batavia, which is worth more to me than all the Farmer has ever cost me. Upon his way of making fence with *wooden* caps, I claim an improvement. I lay my rail fence in the usual way, four or five rails high, then set a pair of stakes, of any kind of timber, perpendicular, on the same side of the fence, on the ground close in the corners, (see dots in engraving,) and with a coil of No. 10, annealed wire at my feet, a hook formed in a loose end, which is passed around said stakes and the wire drawn through this hook until *just* tight enough, then bent back, which forms two hooks connected, and completes the cap; then with a few cuts of a file, the coil is separated from the cap; then put in above the cap three or four rails, and a good fence is the result. Expense of wire, at 7 to 7½ cts. per lb., is a fraction over one cent per corner, which is less than the cost of timber, and saves boring holes and shaving stakes. Brother farmers, try it, and if it don't pay, charge the loss to your humble servant. **Joseph Watson.**—*Clyde, N Y., Aug*, 1850.



* * *

Fair of the Royal Agricultural Society, England.—We are indebted to Col. L. G. **Morris**, of Mt. Fordham, N. Y., now sojourning in England, for English papers containing an account of the great Fair of the Royal Agricultural Society, held at Exeter during the week ending on the 20th of July. The show is represented as being the very best ever given by the Society. A great dinner was given in the pavilion on the last day of the Fair, at which an immense multitude partook of the good things Englishmen know how to provide and appreciate. Englishmen can't do anything of importance without a good dinner. The American minister to England, Mr. **Lawrence**, and Wm. C. **Rives**, the American ambassador to France, took part in this festival, together with most of the foreign ministers. Both the American ministers made very fine speeches. At the conclusion of Mr. **Lawrence's** address, a loud call was made for Col. **Morris**; but a programme of the speakers having been previously prepared by those having the management of the festival, it was adhered to, although there was a general anxiety to hear Mr. **Morris**.

* * *

Monroe County Fair.—It is the intention of the officers to make the coming Fair of this Society both interesting and profitable. It is to be held in Rochester on the 24th, 25th, and 26th of September. The last day is for the sale of articles. Many have complained that there has been no such opportunity at our previous Fairs. The Society, therefore, concluded to hold the Fair *three days*, instead of *two* as usual, affording a good opportunity on the third for the purchase and sale of any articles that may be offered. Many of our citizens, who have *taste* to distinguish between *butter* and *grease*, are making calculations to supply themselves with their winter stock of butter and cheese at our County Fair. We have no doubt this arrangement will be a mutual benefit to both buyer and seller. Mr. **James P. Fogg** will, at any time previous to the Fair, take charge of articles designed for exhibition or sale.

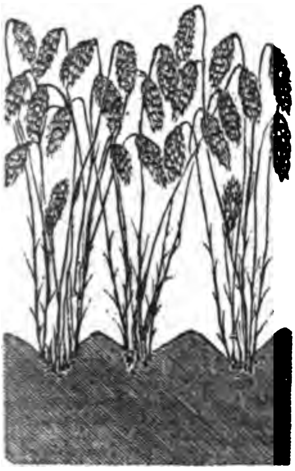
* * *

Ohio State Fair.—The Ohio State Board of Agriculture are determined to make their next exhibition in Cincinnati every way creditable. It is to be held on the 11th, 12th, and 13th days of September. The Ohio Mechanics' Institute gives an exhibition, and the American Pomological Congress hold their annual meeting in Cincinnati at the same time. The Board have made arrangements with the railroads to carry articles to and from the Fair free, and passengers at half the usual price.

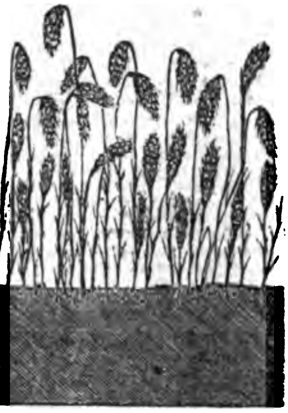
* * *

We are indebted to friends for many valuable pamphlets, premium lists, &c. The *Transactions of the Michigan State Agricultural Society* is quite an interesting volume of 234 pages, containing the Constitution of the Society, a list of the officers, the Address delivered at the last State Fair, the Report of the Executive Committee, Reports of the County Societies, and other valuable matter. The State Society was organized on the 17th of March, 1849, and this volume speaks well for its efficiency.

Wheat Culture.—We have taken particular pains the present season to ascertain the condition and yield of the wheat crop, and the effects of different modes of culture. The crop in Western New York we should think is more than an average one, and though the weather during a part of the harvest was quite unfavorable, owing to continual showers, yet much less loss resulted than was at the time anticipated. We hear of but very little wheat materially injured. Less wheat, probably, was planted by drilling in this neighborhood, than the previous year. This was caused, undoubtedly, by the imperfect operation of some of the drills used. We saw one piece of wheat in this county that yielded but fifteen bushels to the acre. The owner assured us he had every reason to believe the yield would have been twenty-five if it had been sown by hand. It was in irregular clumps, and much of the ground bare. In the same town we examined a field of wheat, one half of which had been drilled in by our friend **Sperry**, with Seymour's Drill. It was done by Mr. S. for the owner of the farm, as an experiment, and those who saw the field expressed the opinion, and it seemed justified by the appearance of the wheat on the ground, that the drilled portion of the field would yield one third more than that sown broadcast. Farmers, therefore, should not permit themselves to become prejudiced against the *system*, on account of defects in any particular machine.



The accompanying cuts represent the appearance of wheat sown both by the drill and broadcast, at the time of ripening. It will be noticed that the height of that sown broadcast is very uneven, while the upright position of many of the heads, indicates that they are light, not being well filled. This is not, however, a fair representation of the ground at harvest; the drill leaves the ground in ridges, as seen in the engraving, but these ridges are worn down by freezing and washing, and at harvest the ground appears nearly level. It is this filling up of the hollows that to so great an extent prevents the freezing of drilled wheat.



The Exeter (English) Times says—"Prof. **Johnston** said in a lecture, last week, before the East of Berwickshire Farmers' Club, 'in New Brunswick, New England, Vermont, New Hampshire, Connecticut and New York, the growth of wheat has almost ceased, and it is now gradually receding farther and farther westward. Now, when I tell you this, you will see that it will not be very long before America is unable to supply us with wheat in any large quantity. If we could bring Indian corn ~~into~~ general use we might get plenty of it.'"

We hardly think New York is prepared to give up raising wheat, nor do we think the quantity grown in the least diminishing. The Lockport Courier estimates the present wheat crop of Niagara County at one million bushels, which considering that it is one of the smallest counties in the state, is certainly a very large yield. The estimate may not be correct, but it shows, at least, the opinion of one having good opportunities to judge, and that the farmers of Niagara Co. have little thoughts of relinquishing wheat culture.

The Editor of the Albany Journal, who has been on a trip through the State, speaks thus of what he saw :

> "Never has the teeming earth yielded her treasures with a more bountiful hand. Never did 'seed time and harvest' promise more abundant reward to the husbandman. Onondaga, Cayuga, Seneca, Ontario and Monroe, are in a truly palmy condition. Ontario and Monroe resemble the richest and best cultivated portions of England and Belgium. We have never seen in that portion of our State, so many acres promising a larger yield or better wheat"

The Editor of the Rochester American says :

> "The quantity of wheat raised in Western New York this year is very great. There was a very large number of acres sown last fall, and the seasons have been as favorable as could be desired for the growth and ripening of the grain. The quality of the wheat is rarely better than it is this year."

We hope, and we have good reason to believe, that those who prophesy the abandonment of wheat growing in this State are false prophets, and those who are making calculations on such a state of things are doomed to disappointment.

Samples of new varieties of wheat have been distributed through the Patent Office to our farmers, and many thus favored have grown and preserved it with care, and now are prepared to furnish their neighbors with the new kinds, for seed. E. **Cornell**, of Ithaca, N. Y., writes us that he has the *Etrurian* Wheat, procured from Mr. **Ellsworth**, while Commissioner of Patents, some six years since. Mr. C. says: "It has grown entirely free from chess, smut, rust, and weevil. The straw is stiff and not subject to crinkle; just previous to ripening it assumes a beautiful purple color which changes in ripening to a golden yellow. It is the bald variety, a white or very light yellow berry, which is enclosed sufficiently firm by the husk to prevent waste in harvesting, and not so tightly set as to thresh hard. It is very hardy, stands the winter well, and grows as well in the wet and low grounds, apparently, as on the more elevated and dry. For flouring it is unsurpassed. It yields more pounds per bushel measure than any other variety I know of, and the yield of flour is proportionably large." It is offered for sale by Mr. C. at Ithaca, for $2 per bushel.

Timothy Judson, of Salem Cross Roads, Chenango Co., N. Y., has the *White Blue Stem* wheat, also obtained at the Patent Office. Mr. J. says: "I do not know how it has succeeded in other regions, but I am satisfied that it is the best variety raised here, the quantity produced being greater, and the quality superior to any other. It has been said that it will not rust, and that the Hessian fly will not injure it. I can say that since I have raised it, neither the rust or fly have troubled it and one season the fly injured the flint wheat very much, while the blue stem was untouched."

Mr. Judson was awarded the first premium for specimen of this wheat, exhibited at the last State Fair. Mr. J. offers this wheat to farmers, for seed, at $2 per bushel, at his residence, and if a barrel or more is ordered, he will deliver it at Dunkirk.

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We have received from the author the following communication, with a requst for insertion in the Farmer previous to the State Fair:

> "Having been forced into a discussion as to the relative merits of 3d Duke of Cambridge and Mr. Vail's Duke of Wellington, and Mr. Vail still insisting that Wellington is the better bull, because Mr. Bates so wrote him, I invite Mr. V. to show both his bulls, Duke of Wellington and Meteor, at Albany, at our next great State Show, along side of Cambridge, that the public may there compare them and see the character of each. A. **Stevens**."

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By a list of the books in the State Agricultural Library, published in the Transactions, we perceive that it consists of more than 600 volumes, about 100 of which have been added during the last year, principally by donations.

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State Fairs for 1850.—State Fairs for the present year will be held as follows:

New York—at Albany, Sept. 3, 4, 5, and 6.
Maryland—at Baltimore, Oct. 23, 24, and 25.
Ohio—at Cincinnati, Sept. 11, 12, and 13.
Michigan—at Ann Arbor, Sept. 25, 26, and 27.
New Hampshire—first week in October.
Rhode Island Imp. Society—at Providence, Sept. 18th, 19th, and 20th.
Georgia—at Atlanta, August 15.
Upper Canada—at Niagara, Sept. 18, 19, 20.

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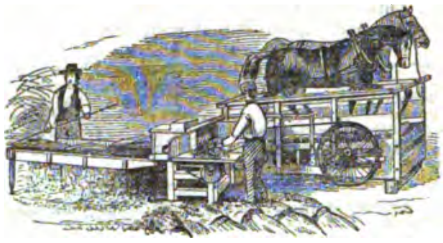
The cultivation of the heart should be like that of a garden, where we prune and weed before we begin to plant.



Emery & Co's. New Thresher and Cleaner.

FOR nearly two years we have been experimenting to perfect a Cleaner, to be operated with our power for public and field threshing; and at the expense of much time and several hundred dollars, we have succeeded to our entire satisfaction, and now are prepared to furnish a Cleaner combined with all the advantages of our overshot cylinder, and at the same time requiring less force to operate its rotary motion than is required by the vibrating separator. We have tested it very thoroughly during last harvest, and some of them have been used the past season for public threshing in the best grain growing sections of the State, with the best success,—threshing months together an equal amount, and at less expense, than the common threshers with the vibrating separators.

The Cleaner has all the advantages of a good fanning mill, cleaning the grain fit for market, and wasting none. The additional cost being not more than an ordinary fanning mill, or about *thirty dollars*,—making the whole Thresher and Cleaner cost $75 to the farmer. The Cleaner can be detached, and the Thresher used alone when desired.

N. B. The above Threshers and Cleaners, as also an improved Railroad Horse Power, will be supplied by J. P. Fogg, No. 14 Front st., who is our only agent for them in Rochester, and of whom only can they be obtained there. The prices will be—

For Single Power,........................	$85
" Threher and Separator,..................	35
" Bands, Wrench, Oil Can, extra pieces,........	5—125
" Two Horse Power,.......................	110
" " Thresher and Separator,.........	35
" Bands, oiler, wrench &c ,..................	5—150
Also, Wheeler's one Horse Power, Thresher and Separator, complete. (improved this season.)...........	120
Wheeler's two Horse Power, Thresher and Separator, complete,................................	145
Emery's Thresher & Cleaner, with bands, wrenches, &c.,	75
" Saw Mill, complete for use,................	35
Grant's Fan Mills, adapted for hand or power, from	$22 to $28

Manufactured and for sale at their Agricultural Warehouse & Seed Store, 369 and 371 Broadway, Albany, N. Y.

Sept. 1850. EMERY & CO.

GREAT SALE OF FRUIT AT AUCTION.

THE WHOLE STOCK OF A NURSERY TO BE SOLD AT AUCTION, SEPTEMBER 20th, 1850.

THE Proprietors of the Lake Erie Nursery, Cleveland, Ohio, being about to make a change in their business, will sell their entire stock of Fruit and Ornamental Trees, Shrubs, Roses; &c. &c., at Public Auction, and without reserve, on Wednesday, the 20th September next.

The collection embraces all the choice leading, and new varieties of Fruits; rare Ornamental Trees, Shrubs, &c , and in extent of variety and correctness to name, is probably surpassed by no Nursery at the West.

The stock of Pears on free stocks, and dwarfed on Quince, is very good, and also Cherries, Apples, Peaches, Plums, Grapes Quinces, Currants, Raspberries, &c. &c.

Among the Ornamental Trees and Shrubs, there are plants from one year's growth to an extra size, and the stocks of Mountain Ash, Scotch Larch, Deciduous Cypress, Norway and Silver Maples, European Lindens, Horse Chestnuts, Kentucky Coffee Trees, Garland Dentsin, Daphne Megereon, Monthly Chinese Evergreens, and Tree Honeysuckles, &c. &c., are especially good.

The stock of Evergreens is large, and most of them having been twice transplanted, they are in excellent condition to be removed.

The sale will be made in lots of 10 to 100 trees or plants in each lot. The correctness of varieties may be relied upon, and purchasers can have the privilege of removing their trees at any time previous to the 20th May, 1851.

The purchaser can dig and remove his trees himself, or the proprietors will do it for him, charging him the usual price of packing, &c.

The terms of sale, unless otherwise agreed upon with individuals, will be as follows:

For all sums under Twenty Dollars, cash

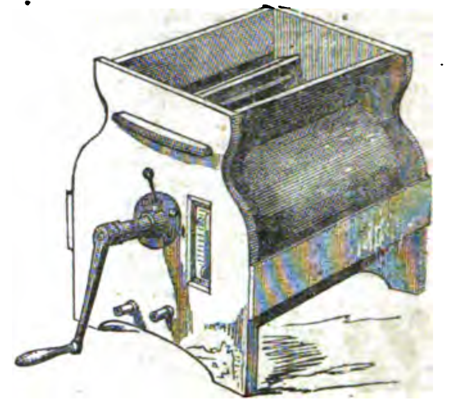
Over Twenty and under Fifty, 30 days.

Over Fifty and under One Hundred, 4 months.

Over One Hundred, six months, approved Notes payable at Bank.

Catalogues will be issued about the 15th of August, which we shall take pleasure in forwarding to any persons who may desire. All communications of inquiry, &c., addressed to the subscribers, will meet prompt attention. ELLIOTT & CO.,

Sept, 1850. Lake Erie Nursery, Cleveland, O.



Compressing and Thermometer Churn Combined.

THIS combination and arrangement forms the best hand churn now before the public.

It has the Double Zinc Cylinders for facilitating the process of obtaining the proper temperature by means of hot or cold water, without mingling it with the milk and cream. A Thermometer is neatly set in one end to enable the operator to know the proper degree of temperature at which to commence churning. The bevel floats which have been before described, are used without any shaft through the churn, by having a dowel at one end, and a square socket at the other, which receives the end of the short crank when it is suspended and propelled. The crank has a groove turned in its round part to receive a pin, which pin drops into the groove when the crank is in its place. To wash and take out the butter, all that is necessary is to raise the pin and withdraw the crank far enough to relieve the dasher, when it is readily taken out.

They are manufactured and sold, wholesale and retail, at the lowest prices, (the cost being but trifling above Kendall's, of corresponding sizes,) by EMERY & CO.

At the Agricultural Works, Warehouse, &c.

Sept. 1850. Nos. 369 & 371 Broadway, Albany, N. Y.

Allen's Improved Portable Railroad Horse Power, Thresher, and Separator.

THE advantages of the above horse power, are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3. They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder, with a concave top, and possesses these advantages. 1 They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, stones, blocks, &c., drop at the end of the table, and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The seperator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of grain per day; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Seperator and fixtures,	$7
" Bands for driving, etc.,	$5
" Wood-sawing machine, complete, and in running order,	$85.
Price of Double Power,	$100
" with Thresher, Seperator, &c.,	$145 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfaction.

Also, Taplins 20 feet circular, and the Cast Iron Sweep Powers. Enquire at the New York Agricultural Warehouse and Seed Store of A. B. ALLEN & CO., 189 and 191 Water st., New York.

Back Volumes of the Farmer we can furnish bound. Also, all works on Agriculture and Horticulture, Poultry, Sheep, &c.

SENECA LAKE HIGHLAND NURSERIES,

CATHARINE, CHEMUNG COUNTY, N. Y.

E. C. Frost, Proprietor.

FRUIT TREES of all kinds, Ornamental Trees and Shrubs, Grape Vines, Hedge Plants, Box for edging, Strawberries, Dahlias, Green House Plants, &c. &c., in large or small quantities.

The Nursery and Standard Trees cover Forty acres.

The following varieties of Apples can be furnished:

The WAGENER.—For this new variety, the N. Y. State Agricultural Society awarded to Charles Lee, Esq., of Yates Co., the place of its origin, the highest premium in 1847, and again in 1848; also procured a colored plate for a frontispiece to its published Transactions, and gave it a full description, in part as follows: "Texture—Fine grained, crisp and juicy. Flavor—Rich, sprightly, vinous, subacid and delicious Season—From October to May, and a prolific bearer." By refering to Vol. 7, page 60, of the Albany Cultivator, it will be seen that I have had the exclusive privilege of Mr. Lee's trees, and have taken scions from his, —the original seedling tree—and also from others worked from it in the neighborhood, so that those ordering will be sure of the genuine variety. Price of this variety 50 cents each, and scions furnished only in small quantities.

The HAWLEY or DOUSE.—For flavor, size, and productiveness, this is believed to be the best Fall Apple known, either for dessert or market purposes. A description and outline can be seen in the Cultivator of April, 1847, from which we quote: "Of all the varieties of Apples which have lately been brought to notice, probably none is destined to become more popular than the *Hawley* or *Douse*." Also in the Horticulturist of July, 1847; Hovey's Magazine of December, 1847, and the Genesee Farmer of May, 1848; the latter in describing it, adds: "The first time we saw it was at the State Fair at Auburn, in 1846, when it was exhibited by E. C. Frost, of Chemung Co, as the *Douse*. His specimens were monstrous, and we well remember the commotion it created among the Pomologists present, to all of whom it seemed unknown." Trees four years from the graft, 50 cents each. Scions by the dozen or hundred.

The WINTER KING—Is a very showy and productive Apple, cultivated in this and Tompkins Co., where it sells one shilling per bushel higher than that fine and well known variety, the *Swaar*. Twenty-five cents per tree

TOMPKINS—Origin Tompkins Co. An outline and description is given in the Horticulturist of February, 1848. Mr Downing says: "A large, handsome and productive autumn fruit, superior in flavor to the *Porter*. We commend it with confidence to the notice of amateurs and collectors of good fruit." Season—October and November. Twenty-five cents each.

In addition to the above four new varieties, among other standard sorts, are the following: Early Harvest, Large Sweet Bough, Summer Queen, Fall Pippin, Early Joe, Norton's Melon, Swaar, Baldwin, Northern Spy, Roxbury Russet, Ladies Sweeting, Newtown Pippin.

SCIONS.—One or two dozen can be sent by mail, with safety, to any part of the Union, and larger quantities by public conveyance.

Pears and Plums are not affected with the blight.

Eastern fruit growers can procure Peach trees here perfectly free from the *Yellows*, a disease to us unknown.

Trees carefully packed and sent by public conveyance to any section of the United States or Canadas. Being on the Chemung Railroad, which connects the New York and Erie with the Buffalo and Albany route, at Elmira and Geneva. This location for Railroad facilities, is surpassed by none.

Price Catalogues furnished gratis to all post paid applicants, containing an engraving and full description of the Wagener and Hawley or Douse Apples.

Sept. 1850.

Daguerreotypes that are Daguerreotypes.

BROWN & HOWARD'S Emporium Daguerrean Gallery, No. 9, second floor Gould Buildings Having opened a splendid Gallery in the Gould Block, would respectfully invite the public and all those wishing good likenesses, to give us a call, and we will assure them they will not waste time and money, as is often the case. Our Gallery is furnished in a style of unusual splendor, equal to any in the State. The walls are adorned with some of the finest works of Art, both of pencil and engraver.

Strangers visiting the city, and having a few leisure hours, will be amply rewarded by a visit to our Gallery, which will be kept open during all business hours. Please call and examine for yourselves.

WM. BROWN,
JOHN HOWARD.

The undersigned takes this method of informing the citizens of Rochester and vicinity, that by the solicitations of many citizens, he has been induced to return to the city for the purpose of making it a place of permanent location. Having been absent from the city one year, and in constant practice, experimenting in the above named Art, has now returned better qualified than ever, not only to sustain, but excel my former reputation as an Artist, being well known in this city and vicinity, as formerly principal operator in Mercer & Co.'s Gallery, corner of Main and St. Paul streets, would now respectfully invite my old friends, and the public generally, to call at No. 9, Gould Buildings, where you can see likenesses that will speak for themselves.

[7-tf] W. BROWN.

Rochester and Charlotte Plank-Road Nurseries,

ROCHESTER, MONROE CO., N. Y.

THE Subscribers respectfully solicit the attention of Fruit Growers and Tree Dealers to their healthy stock of Fruit and Ornamental Trees offered the ensuing autumn, consisting in part as follows:

Apple Trees—from 6 to 9 feet high, all popular sorts, from $15 to $18 per 100. Northern Spy, in large or small quantities, from 5 to 10 feet high, from $20 to $25 per 100.

Cherry Trees—from 5 to 10 feet high, handsome headed and thrifty trees, from $18 to $25 per 100.

Peach Trees—two years old from bud, free from all diseases, the most esteemed varieties, from $12 to $16 per 100.

Raspberries—Fastolff, Franconia, Red and White Antwerp, $2 per hundred.

Strawberries—Burr's New Pine, Columbus, Rival Hudson, Boston Pine, $2 25 per 100. Hovey's Seedling, and a dozen other sorts, from $1 to $1.50 per 100.

Rhubarb—Giant sort, (true,) the most desirable for market gardeners, an excellent forcer, $10 per 100, $70 per 1.000. Myatt's Victoria Rhubarb, largest in cultivation, $4.50 per dozen.

ORNAMENTAL TREES AND SHRUBS.

European Mountain Ash, from 6 to 12 feet high, very ornamental for cemeteries, avenues, lawns, and streets. $25 per 100.

Norway Spruce, Scotch Pine, Weymouth Pine, Pine Aster, White Pine, Larches, Hemlock, Spruce, from 3 inches to 3 feet high, and some 5 to 10 feet high, at low rates.

Japan Spiræa, (Spiræa prunifolia flore pleno,) from 3 inches to 3 feet high, from $1.50 to $3 per dozen.

Spiræa Lanceolata, Douglassi, Hypericifolia, Thalictrioides, &c., &c., $2.25 per dozen.

Forsythia Veridissima, (Chinese Forsythia,) $2.25 per dozen.

Wigilia Rosea, the most beautiful shrub introduced lately, perfectly hardy. $3 per dozen.

Deutzia Scabra, Canescens, Nova Japonica Gracilis, $2 per doz.

Twelve varieties of Honeysuckles, including the Chinese, (Lonicera Flexuosum,) $2 per dozen.

Running Roses—Queen of the Prairies, Baltimore Belle, Russel's Cottage, Laura Davoust, Dundee Rambler, Ayrshire, Felicite Perpetuel, and a number of others, $2.25 per dozen. Bourbon, Noisettes, Teas, Hybrid Perpetuals; all robust growers, shrubby ha[illegible] such as Malmaison, La Reine, Dr. Morp, Mrs. Ellfott, Madam Laffay, Cloth of Gold, Bourbon Queen, Triumphe de la Guillotierre, &c., &c., $3 per dozen.

Privet, for hedges, adapted to cemeteries, makes beautiful garden division hedges. $15 per 1000.

A general nursery collection under extensive propagation.

C. J. RYAN being a regular bred Horticulturist of upwards of twenty years practice, in the first establishments in England and this country, is some guarantee for the accuracy of every tree, plant and shrub sent from this establishment.

A Catalogue of the entire stock will be published next month.

C. J. RYAN & CO., Proprietors.

Sept. 1850.

Pure White Lead.

THE Rochester White Lead Manufacturing Company beg to offer their brands of PURE LEAD to the attention of agriculturists and horticulturists, for painting permanent structures of every description.

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Rochester, August 1, 1850. [8-tf]

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Gen. Farmer Office, Rochester, June, 1850. [6-tf]

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VOLUME XI, FOR 1850.

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December, 1849. *Rochester, New York*

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THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—OCTOBER, 1850. NO. 10.

AMERICAN AG. STATISTICS IN GREAT BRITAIN.

We have just received from Edinburgh the "Second Edition, with Additions," of Macqueen's "Statistics of Agriculture, Manufactures and Commerce" of the British Nation, in which frequent reference is made to the Agricultural statistics of this country, as published in the Patent Office Reports. Some of the statements thus honored abroad, are so wide of the truth that they deserve public notice and correction. In a note at the foot of page 10, it is said that "The United States Patent Office Report for 1848, states that the value of milk produced in the States of New York, Pennsylvania and Ohio, is $100,000,000 yearly."

This estimate is too high by more than $50,000,000. The number of cows actually milked in any one year, has never been ascertained in Ohio or Pennsylvania. In New York, at the State census of 1845, they were counted, in obedience to a law which was drawn by the writer, as Chairman of the Committee on Agriculture in the Legislature. The number was 999,490. In the Patent Office Report for 1849, we have estimated a gain of 100,510 in four years, being an aggregate of 1,100,000. The dairy business has been greatly extended in New York since 1845. Increased railroad facilities for conveying milk into the city of New York, and all others in the State, have largely augmented the consumption of the article. Two-thirds of the cows in the State, yield a return of less than $20 a year; while a third produce milk worth $20 and over. The highest reported to the Patent Office, yield over $60 to the cow, taking the dairy together. We have estimated the whole as equal to $20 a head, or $22,000,000 for the 1,100,000 in the State.

In Ohio, the cows on the Western Reserve are equal to any in New York; but farther south, where little or no attention is paid to the manufacture of cheese, and where neat cattle are reared mainly for their meat, and cows and calves often run together, it is not common for the milk of a cow to be worth over $10 a season. Nor will Pennsylvania compare favorably with New York for the extent of its dairy business. While the number of Cows milked in Ohio and Pennsylvania is perhaps 30 per cent. larger than in New York, yet, owing to many causes which will suggest themselves to the mind of the intelligent reader, the product of New York in milk is nearly equal to that of both the other States. We trust that the farmers of Ohio and Pennsylvania, and of all the other States in the Union, will have spirit enough to induce the accurate counting of the cows known to be milked. We give Ohio and Pennsylvania credit for producing $23,000,000 in milk a year. This estimate gives to the three States an aggregate of $45,000,000.

On page 12, Macqueen says: "The Patent Office Report of the United States, after minute inquiry over the Union, says that each cow produces *thirteen tons of dung yearly*, exclusive of what is dropped on the land." The quantity dropped on the land is estimated in England at three tons. This is a most extravagant calculation for this country, unless the water contained in the dung is excessive.

Under ordinary circumstances, in eating 100 lbs. of hay, or its equivalent in grass or other food, a cow voids 40 lbs. of the matter consumed by the bowels and kidneys, and 60 by respiration, as vapor, carbonic acid, and insensible perspiration. Boussingault (see Rural Economy, page 377,) gives an account of an experiment made by him, in which a cow consumed in 24 hours as her ration, 40 lbs. 2 oz. 5 dwts. of potatoes and 20 lbs. 1 oz. 5 dwts. of after-math hay. In the potatoes there was of dry matter, 11 lbs. 2 oz. 1 dwt., and in the hay, 16 lbs. 11 oz., making the dry food consumed daily, 27 lbs. 13 oz. 1 dwt. When equally dried, the matter voided was as follows: In the excrement, 10 lbs. 8 oz. 12 dwts.; in the urine, 2 lbs. 6 oz. 17 dwts.; in the milk, 3 lbs. 1 oz. Now, as 10 lbs. 8 oz. 12 dwts. are to 27 lbs. 13 oz. 1 dwt., so is the dung of a cow giving milk, to the dry food consumed. The dung and urine together are equal to about 40 per cent. of the food. The milk added to the other excretions, makes the aggregate over 50 per cent.

How much hay will a cow consume in a year, or its equivalent in grass? A ton a month? We think not. But suppose she did. Would it be possible to get from it over 50 per cent. of its weight in good manure, unless we count pure water as such? Cows require food according to their weight, and the quantity and quality of milk which they give. It is a fair American cow that eats 25 lbs. of good hay a day, which is equal to 9,125 lbs. a year, or over 4½ tons. Few cows eat so much, and if they did, *two tons* of manure, in place of "thirteen," to each cow would be the result of "a minute inquiry over the United States."

There are other statements in the Patent Office Report, and extensively copied and believed at home and abroad, which are clearly wrong to the amount of hundreds of millions of dollars. These errors in statistics lead directly to errors in legislation, and the whole community suffers serious injury in consequence of official misstatements in matters of fact.

Thus, all the millers and dealers in wheat were assured that 10,000,000 bushels of this grain were grown in the State of Michigan in the year 1848.—It is claimed, on page 121 of Patent Office Report for 1848, that the census of 1849 would show 10,000,000 bushels to be rather "too low an estimate." The census of 1849 was taken, and instead of sustaining the guessing of the preceding year, it established an over estimate of more than 100 per cent.—There were less than 5,000,000 bushels (4,739,299.) In other wheat growing States, there was also great exaggeration, which operated to depress the market price of this staple, to the great damage of farmers. Corn-growers sustained equal injury by the extravagant report that 200,000,000 bushels of surplus could be spared for foreign consumption, and of course was in the market. All extravagant calculations of this kind, benefit the *buyer*, to the prejudice of the *producer* of breadstuffs. One year with another, the latter will be the gainer by having the truth generally known. Correct information is always valuable; while false information is always injurious, in the long run. To show at a glance how rapidly this system of over estimates has advanced within the last ten years, we copy from the New York *Dry Goods Reporter* of August 31st, the estimates (official) of the productive industry of the United States in 1840, and in the Patent Office Report for 1848:

ANNUAL PRODUCTS OF UNITED STATES INDUSTRY, WITH THE EXPORT TO ENGLAND AND THE REST OF THE WORLD.

	Annual Product.	Exports—Total from United States.	Of which to England.
Agriculture......	654.387,597	111,069,378	73,495,849
Manufactures...	239.836.224	11.809,501	541,540
Mining........	42.888,761	375,154	194
Forest........	16,835,060	5.917.994	1,649.869
Fisheries.......	11,996,008	2,547,654	843,053
Total	$965,413,650	$131,710,081	$76,580,205

More than one-half of the whole export of American industry is to England, and of the remainder, $12,043,858, is to her dependencies, leaving but $48,136,000 as the value of exports to all the rest of the world. Nearly the whole of these exports to England, it will be observed, are raw products, which go to the direct consumption, as food, which amounted to $14,732,927, and raw material for manufactures, that is to say, articles indispensible to feed and employ the operatives of Great Britain. The British returns give the annual production at £247,000,000, and the exports to the United States £9,564,902—reducing them to dollars, at $4 80 per £, and comparing them with the aggregate United States returns, we have the following results. It is to be remarked that this valuation for the United States is, as compared with England, very large; but the valuation for 1848, per Patent Office Reports, 2,300,000,000.

The reader will see that ten years ago the productive industry of the country was estimated at $965,413,650. In the short space of eight years, the figures stand, on page 720 of Patent Office Report, at $2,323,564,756. Here is an apparent gain in eight years, of over thirteen hundred million of dollars!—When the Official Tables were made up and published as the results of the census of 1840, we took occasion to demonstrate (as we believe most conclusively,) that the products of agriculture were over-estimated at least $100,000,000. Thus, New York was credited $28,143,423 for 3,127,047 tons of hay, or at the rate of nine dollars a ton. The hay crop of Pennsylvania was estimated at the same price, and in some other States. Hay, as every body knows, is mainly consumed on the farms where it is cut, and is generally worth to the farmer from four to five dollars a ton. Farmers are glad to winter the 20,000 canal horses in the State of New York on hay, at five dollars a ton. No man can rear a three year old steer, worth $18, without his consuming six tons of hay, or its equivalent in grass, straw, or other feed. Even the milk the calf consumes during the first six weeks of its existence, requires for its production more than a dollar's worth of hay or grass, at twenty-five cents per 100 lbs., dry weight.

Last Autumn, while making an agricultural tour through the Western States, we saw many tons of good timothy hay which had been purchased, delivered at a railroad depot north of Springfield, Ohio, at three dollars a ton. The purchaser kept three presses at work, and sent the article to New Orleans, Texas, Mobile and the West Indies. What folly to estimate the hay crop of the United States at eight dollars a ton, when to the agriculturists who raise and consume it, it is worth only about half that sum!—But this forage which is set down at two prices, reappears in dairy products, in wool, in neat cattle, and in horses and mules.

To illustrate the errors perpetrated in 1840, and still continued in an aggravated form, it is sufficient to state that the 583,150,000 bushels of corn said to have been grown in the United States in 1848, were estimated at *fifty-nine cents a bushel*, making $344,058,500. The "Butcher's meat, including mutton, beef and pork," made from corn and other food estimated at equally extravagant prices, is set down as worth $146,597,360. "Straw, chaff and manure," are estimated at $160,000,000. A Tennessee planter who raised 10,000 bushels of corn worth 20 cts. a bushel or $2,000, which he converts into fat hogs and sells at that sum, is credited, first with $5,900 for his corn, then with a like sum for the meat which the corn makes, and then with some $2,000 for the manure of his hogs! The figures are these:

10,000 bu. of Corn, at 59 cts. per bu.......	$5,900
Meat....................................	5,900
Manure..................................	2,000
	$13,800

Here is an error of over 600 per cent. The American people are induced to over-trade and run extravagantly into debt to England, by this over-estimate of their resources, which in the aggregate exceeds one thousand millions of dollars.

Mr. WALKER, late Secretary of the Treasury, estimated the productive industry of the country as equal to three thousand millions of dollars a year; and Mr. MEREDITH, his successor, alludes to this estimate in a way that leads the reader to infer that he regarded it as correct and trust-worthy. Of all the products of American soil, what passes for *statesmanship* is the cheapest commodity. A love of truth for the sake of it, and years of patient research to attain it, characterize but few of the great men so abundantly manufactured by the patent, short-hand process of our day. The science of Industrial statistics is a profound study, and no branch of it is so complicated as that which treats of the transformation of certain elements in earth, air and water, into cultivated plants, and these again into meat fat, wool, milk, and the flesh of horses and mules. The whole operation is in a circle; and the quantity of potash and phosphorus which may safely be extracted from the soil and exported to foreign countries, never to return, is not so large as American farmers seem to believe. From **Macqueen**'s work, it appears that a given amount of farm labor in England yields twice as much gold as in this country. If our readers wish to know why this is so, it will be explained hereafter.

THOUGHTS ON THE PRESENT SYSTEM OF AMERICAN AGRICULTURE,

With a few suggestions as to the means which will probably be necessary to improve it.

Being an English farmer, recently arrived in this country, and now engaged in cultivating a portion of its partially exhausted soil, I feel disappointed that you did not, in your late excellent article on "The present position of American Agriculture," state what you consider would be the best means to be adopted to repair the grievous injuries already done to the land; and also, that you gave us no advice as to the future management of our farms, in order to prevent the impoverishment of the soil by the removal of crops, which are necessarily sold off it.

I am aware that to correct the present errors, and fix agriculture on a rational and scientific foundation, will be the work of years; requiring a perfect knowledge of the constitution of the soil and the elements removed from it by the growth of cultivated plants, enabling us to fix a judicious rotation of crops, so that the substances not required by one class of plants may be converted into food by those of an opposite character. Till this is known — and it will require many years of laborious chemical investigation and expensive systematic field experiments — we must go blindly on till legislation sees fit to use proper methods to attain so great a desideratum.

In the mean time it may not be utterly useless to endeavor to ascertain what knowledge we do at present possess, of the requirements of cultivated plants. The most valuable and important of these is the cereal *wheat* — systematic and accurate experiments on which, in the field and the laboratory, have been carried on by Mr. **Lawes**, on his estate at Rothamsted, Herts, England, which demonstrably proves that on ordinary soils the chief substance which need be supplied to grow large crops of wheat, is ammonia, (a combination of nitrogen with hydrogen.) It is a volatile alkali, which, when neutralized and fixed by sulphuric acid, is used to a large extent by the farmers of England, at a cost of $60 per ton, 2 cwt. being sown to the acre; and it was found that when nitrogen was employed in this form, or as muriate or carbonate of ammonia, it requires about *five times as much to grow wheat as is contained in the grain when grown*. Hence, wheat may be called a *nitrogen consuming or destroying* plant. Barley, oats, Indian corn, timothy, &c., belonging to the same botanical genus, may be considered, in the absence of direct experiment, as *nitrogen consumers also*. Thus it will be seen, *that nearly all the plants grown by the American farmer, tend to exhaust the soil of nitrogen.*

Now, if nitrogen, in some form or other, be not present, the soil is not exhausted of the mineral elements; for, in such a case, the wheat will not thrive: but it always gets sufficient to produce a few bushels of wheat to the acre, from the atmosphere; for all animal and vegetable substances, during decomposition, give off carbonate of ammonia, which is brought down to the earth by every shower of rain, and absorbed by the roots of plants. The beneficial effects of "plaster," (sulphate of lime,) according to **Liebig**, is owing to its property of fixing the ammonia thus brought to the land, till it is required by the plant. Be this as it may, it is certain that a sufficient quantity can not be obtained from the atmosphere, to meet this immense destruction of nitrogen by the almost uninterrupted growth of cereals; and thus it is, that the crops are so small when all the organized nitrogen originally in the soil is removed. Is there not something defective in such a course of tillage? Ought we not to lessen this destruction, by growing plants which contain more nitrogen than they have derived from the soil, obtaining it in some form from the atmosphere? Turnips, clover, and green vetches are good crops for this purpose, and on what is called in England the "Norfolk," or "four course system" — one-fourth of the arable land is in wheat, one-fourth turneps, one-fourth barley, and one-fourth clover, following each other in the order I have named them. In this manner, if a good system of fattening stock is adopted, the land is kept in good condition and large crops are obtained.

The climate of this country is probably too hot to grow turneps on a large scale; but it is very favorable for the growth of clover, and for its conversion into hay for the use of cattle in winter. Thus, instead of growing the cereal *timothy*, large crops of clover should be grown, and thereby a considerable amount of *nitrogen* would be collected from the atmosphere. But I would by no means plow under the crop, as by so doing a large amount of valuable food is destroyed, which does not in the least benefit the succeeding wheat crop, but rather injures it by causing an unnatural development of straw. Whereas, if the clover was made into hay, and used along with oil-cake to fatten sheep or cattle in the winter, using plenty of straw for litter, a very large quantity of *valuable manure* would be the result; for the composition of the manure depends on the food, and the more *nitrogen* the food contains, the more valuable will be the manure produced by its consumption.

The composition of the following substances will give a correct representation of their value as food for cattle:

Table showing the amount of dry matter, nitrogen, mineral matter, phosphoric acid, and potash and soda, in 100 parts of such substance, from analyses made at Rothamsted, England.—That of Indian corn I obtained by calculation from the proximate analyses of Mr. J. H. **Salisbury**.

Description of food.	Water.	Dry substance.	Nitrogen.	Gross Mineral matter.	Phosph'ic acid.	Alkalies, (potash and soda.)
Oil-Cake,	13	87	5.00	5.50	2.00	1.40
Linseed,	12	88	3.75	4 25	1.60	1.10
Beans, Peas, or Tares,	16	84	4.00	2.50	0.80	1.10
Wheat,	16	84	1.80	1.60	0 75	0.50
Oats,	16	84	2.00	3.00	0 50	0.50
Barley,	16	84	1.60	2 50	0.75	0.66
Malt,	7	93	1.60	2.25	0.75	0.50
Malt Dust,	7	93	4.00	8.00		
Indian Corn,	8	92	1.00	1 34	0.70	0.25

It will be seen that oil-cake contains more of the essentially important elements of nutrition and manure than any other food generally used for cattle. Mr. **Lawes**' experiments on sheep and cattle fully confirm the chemical evidence of its value as food. It being granted, then, that oil-cake is the best food for feeding purposes, the important question is, will it pay to convert it into flesh, fat, wool, and manure? clover being valued at $5, oil-cake $18, and flesh $100 per ton.

My conclusions are drawn from the careful and extensive experiments of Mr. Lawes. Having been for two years chemical assistant to Dr. J. H. Gilbert, the gentleman who has the superintendence of the experiments, I have had full opportunity of forming a correct opinion of the results obtained. Speaking, then, from actual experiment, it will take 4 tons 360 lbs. of oil-cake, and 13 tons 780 lbs. of clover, to produce *one ton* of increase of animal—say fat and flesh.

Leaving the wool to pay for labor and other incidental expenses, I will endeavor to estimate the value of the manure by the quantity of nitrogen it contains and the effect it will produce on the wheat crop—namely, an extra bushel of grain for each 5 lbs. of nitrogen. Thus, with wheat at one dollar per bushel, the nitrogen would be worth *twenty cents per pound.*

In fattening animals, the carbon and hydrogen of the food combining with oxygen in the lungs, is respired in the form of carbonic acid and water, producing as much heat as though they had been burnt in a stove. In this way more than *one-half the entire dry matter of the food is consumed,* and more in cold than in warm weather. But the loss of it is of no detriment to the farm for if the wheat crop is supplied with sufficient *nitrogen,* it will obtain all that it requires from the atmosphere. It will be seen, then, how important it is that *wheat-growing* and *stock-feeding* should be adopted on the same farm, from the fact that though there is such an immense destruction of the useless elements carbon and hydrogen, yet there is comparatively no loss of the vitally important one—*nitrogen.*

There is, it is ture, about 3 per cent. of nitrogen retained in the increase of animal; and there always will, in practial farming, be some loss from evaporation and drainage: so that we will suppose there is *one-third* less nitrogen in the manure than in the food consumed by the animals making it.

Table, showing the quantity and value of the food consumed; the amount of nitrogen it contained; the quantity of nitrogen in manure, after allowing one-third for loss; its value as manure at 20 cts. per lb., and the nett profit of producing one ton of flesh.

	Total weight of food, in lbs.	Value of the food consumed, in dollars.	Quantity of nitrogen in food, in lbs.	Quantity of nitrogen in manure, in lbs.	Value of the manure in dollars.	Value of one ton of flesh.	Total returns.	Cost of food.	Profit in producing one ton of flesh.
Oil-cake	8720	75.24	436						
Clover,	27560	66.95	581						
Totals,	36280	142.19	1017	678	135.60	100.00	235.60	142.19	93.41

Fifty *well bred* sheep would give such a result in twenty weeks—equal to 2 lbs. increase each sheep per week.

I leave it for practical men, and those more acquainted with the prices of lean and fat stock, to say whether such a profit will remunerate them for their capital and trouble; but certain I am, that *some* such method must be adopted, to prevent the present fertile lands of this district from becoming absolutely sterile and incapable of profitably producing wheat at present prices.

Good tillage, under-draining, &c., (by *increasing* the crops for a few years,) only so much the sooner impoverish the land of those elements without which it will not grow wheat, though of the *greatest advantage* if a judicious system of rotation is adopted, so as to restore the elements removed by the crops, back to the soil. The system I have advocated would to a great extent enable the agriculturist to do this; for, besides the nitrogen, there would be 174 lbs. of phosphoric acid, and 122 lbs. potash and soda, *imported* on to the farm in the oil-cake, of which a small portion only would be retained in the animals; for though, in *rearing* stock, a considerable amount of phosphoric acid is removed from the soil in the bones in the animals, it does not affect this question, as we are now speaking of fattening *full grown* animals. The phosphoric acid thus *imported* would be equal to that *exported* from the farm in 386 bushels of wheat. The potash and soda would be sufficient for 403 bushels; so that a farmer may easily calculate how much of these important substances he exports from his farm, and also how much oil-cake or other substances he must import, to keep his soil in its proper condition.

I trust that chemical knowledge will advance with such rapidity that in a few years every farmer will keep an exact account of the elements removed in and by the growth of crops from each of his respective lots, and also know how to replace them again. Is not such knowledge desirable? Is it not worth a mighty effort to attain it? I hope, for the honor and happiness of the country of my adoption, that effort will be made—and success is certain. Joseph Harris.—*Ogden, N. Y., Aug.,* 1850.

LARGE FLEECES.

Messrs. Editors:—There have appeared in the Farmer, and other public journals, statements of large fleeces taken from Merino sheep. If those who tell of having sheep superior in quantity of wool, would also give a statement of the manner of keeping them, it would be more satisfactory; for it is a well known fact, that extra keeping gives an extra amount of wool. I have a flock of grade Merinos, numbering 111, from which I sheared 520 lbs. of wool, all well washed. 54 were ewes, 38 yearlings, 3 bucks, and 16 wethers. My stock buck gave a fleece of 10 lbs. 12 oz. I purchased him of J. D. Patterson, Westfield, Chautauque co. I sheared from the buck, one wether, one ewe, and two yearlings, 37½ lbs. of wool; from 14, including the 5 above, 89 lbs. I gave no grain to my sheep the past year—they were wintered on clover hay. My stock sheep was fed extra after he was taken from the ewes, he being very much reduced in flesh. Sam'l Embree.—*West Dresden, N. Y., Aug.,* 1850.

WOOL IN ORLEANS COUNTY

Messrs. Editors:—Thinking that my neighbors, at least, would like to know the *average* weight of the wool grown and sheared this season, I will say to them publicly, (with your consent,) that in this town and vicinity I purchased 3,578 fleeces, and by average I find the weight just 60 oz. each—3¾ lbs. Considering the quality, this is a heavy clip. About three-eights of the amount was five-eights to three-fourths Merino, the ballance was from five-eights and three-fourths to pure blood Merino. By a pretty close calculation, I am led to believe that the above enumerated fleeces are about the amount that was grown in this town. The average price paid per fleece was about $1.16. X.—*Yates, N. Y.,* 1850.

BEES.—No. 4.

Hives, &c.—I will now give my views in brief on sundry hives in use.

Kelsey's Hive.—This is a hive constructed in an oblong shape, with a door extending the whole length of the hive. The interior is composed of *three* separate boxes, with a pane of glass in the front of each. If I am rightly informed, the inventor claims that in this hive all the advantages of obtaining box, or surplus honey, are derived; and at the same time, by a transposition of the different boxes, the bees can always be kept with new combs, or at least with combs of such age as shall be conducive to their prosperity.

It is true that the bees may thus be transferred to boxes in which they will build new combs, but it is at the expense of subverting the domestic economy of this insect; and this process can never be effected but at the peril, sooner or later, of losing every family of bees that is thus operated on. The reason is this: Where bees are afforded a sett of boxes to work in, the lower one is generally selected as a permanent abode, in which they construct mostly *brood* combs; that is, the combs in which their young are matured. The upper box or boxes are used as store-houses, in which *store* combs alone are generally built. Now, if we take the lower box when filled with bees and combs, built on the foregoing principles, and place it in the position of the second, or next upper box, and put the second box below in the full one's position, the bees will, where they have become numerous, commence working therein, and will fill the same with new combs: and in the fall of the year, if the then *upper* box be taken out and the bees dispersed, they will return to the hive, and finding the lower section only, they will all enter it; thus effecting the transfer from old to new combs, upon which the inventor (there is nothing about it worthy of being called an *invention*,) places so much importance. If one wished to destroy an apiary gradually, he could not adopt a better plan. The bees in working below their permanent residence, act to a great extent on the same principles as they do when laboring above it; and instead of thin sheets of brood comb, many store combs would be built, generally, which could never be used for breeding purposes: hence, when a family of bees is transferred from their original combs to such as are thus fabricated, they can not prosper for the want of a proper proportion of brood combs. If all the bees of a lower box be *driven* into another empty box, they will, in such case, build suitable combs, since there home is *there*, and not in a box above or below them; but while the *queen* is in a separate box, the workers will never construct combs with the same regularity and for the same uses that they do where the queen is present among them. This is very reasonable. Why should they? In their permanent dwelling they already have enough brood combs, and consequently they have no use for more, and brood combs not being suitable to store honey in to the best advantage, store combs are built.

There is another serious objection to this manner of transferring bees. The queen is most always in that section of the hive where the brood is raised, perhaps never entering a storage section, unless temporarily driven out during the height of breeding, for the want of room to deposit her eggs, which sometimes occurs when the honey harvest is very abundant, and when much of her legitimate room is filled with honey. When the season of transferring on the foregoing plan arrives, she will be in the *removed* section; and though the workers may return to the other section, she will not, for the reason that she is unacquainted with the locality, being always at home within her tenement. In such case the safety of the colony or stock is greatly endangered, since they can do nothing without a queen. At certain seasons the bees can produce a queen in the place of one lost; but this can not be done in the fall of the year so as to proceed with spring laying in the usual way. If, then, the queen be lost in the transfer, the family of bees is in a very critical condition; and even if she be not lost, the form of the combs preclude the possibility of the greatest degree of prosperity in the family, and they must sooner or later become extinct.

I believe the foregoing statements to be so firmly based on *facts*, that my position is not susceptible of being overthrown, or even assailed with any tangible argument; yet I hope that apiarians who are skilled in bee-culture will inform the public wherein I err, if I shall state ought but truth. That any written exposition of this subject can tally with *every* man's experience in all cases, is out of the question; but general facts can be given, involving general principles, and that is all I can expect to do.

T. B. Miner,
Author of the American Bee-Keeper's Manual.
Clinton, Oneida Co., N. Y., 1850.

ON BEES.

In the August number of the Genesee Farmer, page 181, friend Miner has advanced a theory which is new to me, in relation to queen bees taking an ærial flight, and that while on the wing coition takes place, and a future race is propagated. This theory conflicts somewhat with some things that have come under my observation, which I will relate.

Some few years since I had a swarm of bees come out, (it being a second swarm,) and after alighting as usual, remained but a short time, when they returned to the old hive. On examining to ascertain the cause, I found the queen on the ground in front of the old hive, totally disqualified for flying, having but one wing, and that a mere semblance of a wing, I returned it to the old hive. On the second day they did nearly the same as on the first. On the third day I put the queen (it being in all respects as it was when I first caught it,) in a hive, and succeeded in getting a few bees in the hive—a bunch nearly as large as a goose's egg—and they stayed. I placed them away from the other bees, and noted their progress; and about the usual time the bees began to increase, though very slow for want of comb. In the fall I took them up. The hive then contained about the usual number of bees, with about a dozen pounds of honey.

And further, for a number of years past, when my bees show signs of disquiet, on hiving them I catch the queen (or queens, if more than one,) and cut one wing, and then return it to its swarm. This I have practiced with good effect. How is this to be reconciled with friend Miner's theory? J. D. C.—*Locke, N. Y., Aug.*, 1850.

* * *

Every man should strive to be a creator rather than an inheritor—to forge his own weapons rather than rely on the rusty sword of his forefathers.

N. Y. State Agricultural Society.

FAIR FOR 1850.

Our columns are too much occupied with the list of premiums awarded on articles exhibited at the late State Fair, to allow of any extended remarks of our own. We can not, however, refrain from a word or two. The fair was held about one and a half miles from Albany, on the Troy road. It was of easy access both from Troy and Albany, and persons were carried to the grounds for a shilling. In this work was engaged horses and vehicles of every description, from the fine carriage and omnibus to the one-horse lumber wagon The road was continually thronged with these vehicles, making the journey on foot unpleasant if not dangerous. About thirty acres of meadow was enclosed by a good fence, for the exhibition. We first made a visit to the grounds on Wednesday morning. In consequence of previous heavy rains, the ground was in a very wet condition, making it unpleasant to get about, particularly for ladies. This evil was partially remedied by laying boards in the principal halls. We rather think that a little previous attention to draining would have been advisable, and that a little money spent in that way would have been very profitably expended. The first thing done by the officers of the Royal Agricultural Society of England, in preparing for their exhibition, is to well drain the ground. The display on the whole was good — perhaps never exceeded. The [illegible] we ever saw

The exhibition of **Fruits, Flowers,** and **Vegetables**, in Floral Hall, was hardly what we expected, and with the exception of *Foreign Grapes*, we shall be much disappointed if it is not far surpassed by the exhibition of our County Society and the Horticultural Society of the Valley of the Genesee, to be held on the 26th of September. The display of **Foreign Grapes** was very fine. We noticed twenty-two varieties from **Van Renssalaer**'s Clinton Point Vinery, among them the Black Prince, Victoria Hamburgh, White Muscat of Alexandria, and Palestine; twelve varieties from L. R. **Colt**, of Patterson, N. J., among them Muscat Blanche, Victoria Hamburgh, and Brown Damascus. Also, several varieties by H. **Vail**, of Mt. Ida, Troy, and a fine young plant of Black Hamburgh, in a box, about six feet high, bearing seven large bunches. The **Floral Ornaments** were superb—a Gothic Arbor, by **Herman Wendell**; a Chinese Temple, principally of verbenas, by J. **Dingwell**, of Albany; a Floral Peacock, by Mrs. J. **Van Nama**, of Pitstown; and a Floral Harp, by Mrs. **Mabbett**, of Mechanicsville, were particularly worthy of praise.

In Manufacturer's Hall there was a fine collection of manufactured articles — chairs, bedsteads, quilts, locks, patent milkers, &c. But this hall was not half large enough to accommodate the articles exhibited, much less the crowd of visitors. There should have been two halls — one for the exhibition of articles of ladies' manufacture. With proper room for display, this would have been the most brilliant exhibition on the ground.

In **Mechanic's Hall** was a great collection of stoves, planing and sawing machines, &c. But the great point of attraction was the steam press, on which was worked the *State Fair Hourly Bulletin*, a little paper set up and printed on the grounds.

The exhibition in **Dairy Hall** was meagre, although we noticed some very fine cheese, mostly from Herkimer county.

Emery & Co.'s **Implement Hall** was the prettiest building on the ground — indeed, it was the only building laying any claim to taste in construction. Perhaps those having charge of the business might learn a lesson from Mr. E., and in future exercise a little taste in the erection of the buildings, without adding materially to the expense. This hall was filled with a collection of implements that for beauty of workmanship, and utility of design, it would be very difficult to surpass. In front of this hall was a fountain and water ram in operation, adding much to the beauty and interest of the place.

In the open ground was a good collection of Seed Drills, Horse Powers, Threshers, &c. Ketchum's Mowing Machine, as it passed over ground, nicely clipping the short grass, attracted a crowd.

There was a fair collection of **Sheep** and **Hogs.** The **Poultry Show** was small. We noticed only *two* lots of Polands and a pair or two of Shanghaes, with several chickens, and *only one* lot of Dorkings. There was quite a variety of the more curious, such as Bantams, Silver Pheasants, &c.

We would suggest that in future no *refreshment tents* be permitted upon the grounds, unless under the control of some person of *honor*, who is both willing and competent to do the fair thing. Allowing persons to come within the enclosure and erect tents ostensibly for the purpose of *feeding the hungry crowd*, while the real object appears to be to rid them of their money without a fair return, is dishonorable to all concerned.

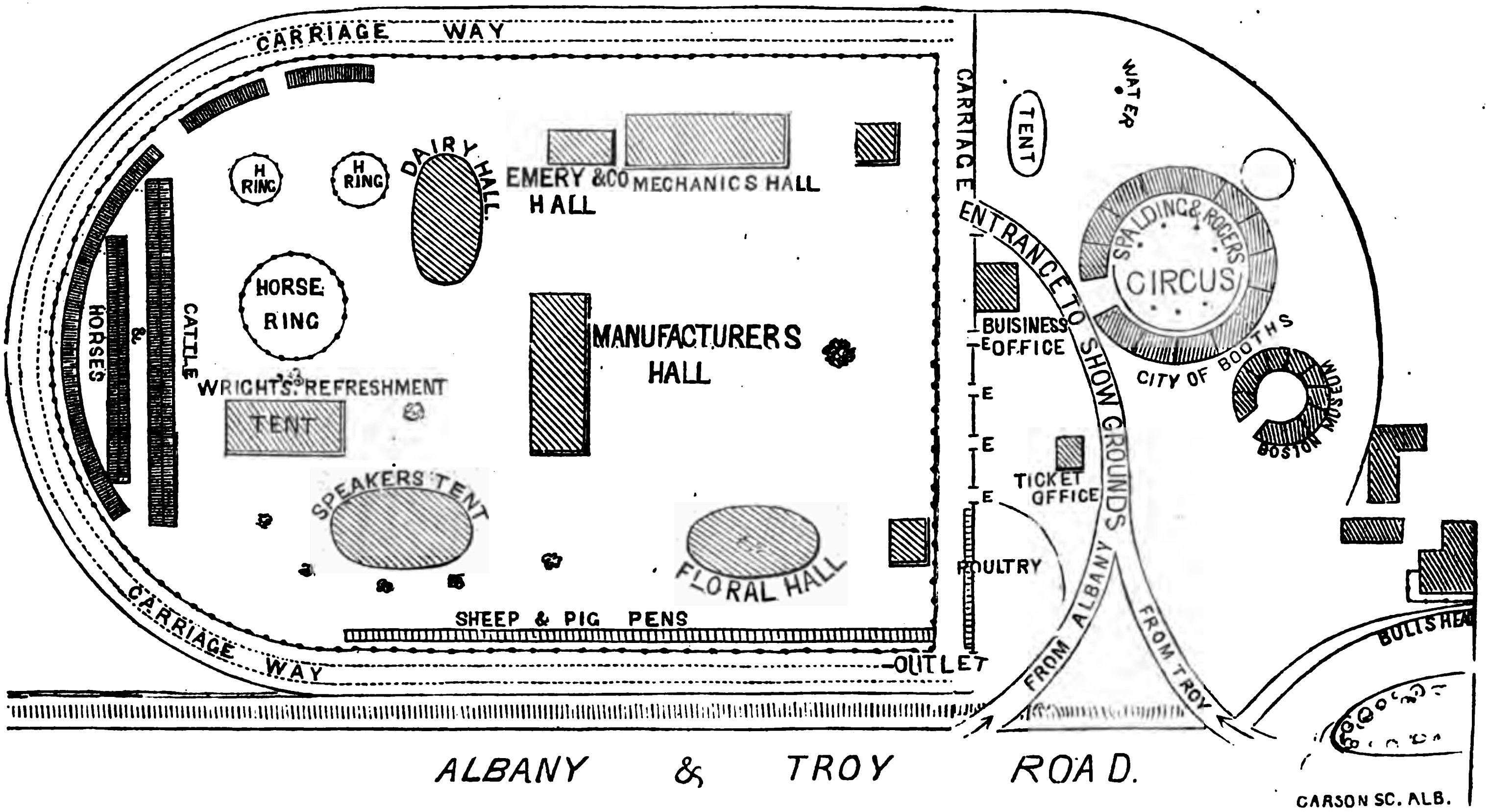
Haydn's Oratorio of the Seasons was performed by the Albany Harmonia Society, on the several evenings of the Fair. We only had the opportunity of hearing it once. The execution of the piece was all that we expected — all that could be desired — worthy of the great composition and its great author. But we regret that the audience was so small. We fear the circus had more attraction for the mass than the sublime, soul-stirring conceptions of **Haydn**, The following, representing the clearing up of a thunder-storm on a summer's evening, we thought peculiarly beautiful; and the latter part, after the fatigue of traveling and attendance at the fair, we could fully appreciate:

> "Now cease the conflict of the winds
> And fast the gloomy clouds retire;
> The sky sublimer swells,
> Pure azure spreads around,
> And o'er the fields the setting sun
> Displays the sparkling robe of joy.
> His flock secure, the shepherd hies
> Light-hearted to his home;
> The quail repeated calls her mate;
> Around the cot the crickets chirp;
> While croak the frogs within the pool;
> And tolls the evening bell.
> Now shines the glitt'ring host of stars;
> The hour of sweet repose is near.
> Welcome, welcome, gentle sleep!
> Soothing balm of every care!
> O, thou that in the cot of toil
> Delight'st to close the lids of health;
> Welcome, welcome, gentle sleep;
> To rest, to rest, away!"

The number of people in attendance was immense, and the receipts for admission to the grounds over $12,000, far exceeding that of any previous year.

The view of the show grounds, on next page, will give those not fortunate enough to be present a pretty correct idea of the arrangement.

VIEW OF THE SHOW-GROUND.



PREMIUMS AWARDED AT THE N. Y. STATE FAIR, Held at Albany, September, 1850.

SHORT HORNED CATTLE.

Extra stock, Bulls over 3 years, Sherwood and Stevens, Auburn. certificate for "3d Duke of Cambridge," who received the 1st premium in 1849; 2d, none; 3d. J D Thorpe, "Dama," $5. Bulls 2 years old, best, Sherwood and Stevens, Auburn, imported Bull "Earl Seaham," 20; 2d do., P P Chapman, Clockville, "Fortune," 10; 3d, do.. George Vail, Troy, "Eclipse," 5. Bulls 1 year old, 2d, Lorillard Spencer. Williams Bridge. imported Bull "Waldeman," 10. Bull calf, best, J M Sherwood, Auburn, "Vane Tempest," 10; 2d. do., Francis M Rotch, Butternuts, "Prophet," transactions and 3.

Cows over 3 years—1st, to George Vail, Troy, Esterville, 25; 2d, Col. Campbell, Rotterdam, Rosa, 15; 3d, Thomas Hillhouse, Watervliet, Daisy. 5.

Heifers 2 years old—1st, Ambrose Stevens, New York. Princess 2d, 20; 2d, George Vail, Troy, Hilpa 2d, 10; 3d, George Vail, do., Eunice 4th, 5

Heifers 1 year old—1st. George Vail. Troy, Lady Barrington 5th. 15; 2d, S P Chapman, Clockville, Duchess, 10; 3d, F M Rotch, Butternuts. 5.

Heifer calves—1st, George Vail, Troy, Hilpa 3d, 10; 2d, J M Sherwood, Auburn. 3

Extra stock—S P Chapman, for his cow Charlotte, which received the first premium last year, a Diploma.

DEVONS.

Bulls over 3 years—Best, R H Van Rensselaer. Butternuts, $25; 2d. John Muir. sen, Hamilton. 15; 3d. Andrew Woodruff, Wyoming, 5. Mr. Van Rensselaer's bull, Bishop, ruled out, having received the prize last year.

Bulls 2 years old—Best, John Freemyre, Schoharie county, 20; 3d, H N Washburn, Butternuts, 5.

Bulls 1 year old—Best. H N Washburn, Butternuts, 15; 2d. Le Roy Mowry, Washington co., 10; 3d, Lewis G Collins, Dutchess county, 5.

Bull calf—Best. Lewis G Collins, Dutchess co., 10; 2d, H N Washburn. Butternuts. 3.

Cows over 3 years—Best. H N Washburn, Butternuts, 25; 2d, Lewis G Collins, Dutchess co., 15.

Heifers 2 years old—Best, E P Beck. Wyoming co., 20; 2d, H N Washburn, Butternuts, 10; 3d. M C Remington, Cayuga. 5.

Heifers 1 year old—Best, Le Roy Mowry, Washington co., 15; 2d, Lewis G Collins, Dutchess, co., 10; 3d, H N Washburn, Butternuts, 5.

Heifer calves—Best, E P Beck. Sheldon, Wyoming. 10; 2d, Do., Transactions and 3.

HEREFORDS.

Bulls over 3 years old—Best, William A Keese, Panio, Peru, $25; 2d. Erastus Corning. jr., Albany, Young Major, 15.

Bulls 1 year old—2d best, W A Keese, Peru, Clinton, Noble, $10.

Bull calf—Best, Erastus Corning jr., Albany, Prince Albert, 10.

Cows over 3 years—Best. Erastus Corning, jr., Albany, Victoria, 25; 2d, do., do., Young Victoria, 15; 3d, W A Keese, Peru, Matilda, 5.

Heifers 2 years old—2d. William A Keese, Peru, Adelaide, 10.

Heifer calf—2d best, Wm. A Keese, Peru, Trans. and 3.

AYRSHIRES.

Bull over 3 years old—Best, E. P. Prentice, Albany. Dandy, $25.

Bull calf—Best, E P Prentice, Albany, 10; 2d, the same, Dandy 3d. Trans. and 3.

Cows over 3 years old—Best, E P Prentice, Daisy, 25; 2d, do., Maida 2d, 15.

Heifer 2 years old—Best, J McD McIntyre, Albany, Norna, 20; 2d, E P Prentice. Ayr 4th, 10.

Heifer calf—Best, E P Prentice, Redlady, 10; 2d, do., do., Jeanie Deans, Trans. and 3.

NATIVE AND CROSSES.

Cows over 3 years old—Best, D H Albertson, Lima. N. Y., $20; 2d. Thomas Bell, Morrisiana, 12; 3d, Isaac Sheldon, Sennett, 4.

Heifers 2 years old—Best, Thomas Bell, Morrisiana, 15; 2d, Isaac Sheldon, Sennett, 10; 3d, Joseph Haswell. Hoosick, 3. John Townsend, of Albany, exhibited a very fine heifer of a cross breed.

Heifers 1 year old—Best, F B Leonard, Rensselaer co., 10; 2d Joseph Haswell. Hoosick, 8; 3d, Thomas Bell, Morrisiana, 3. John M Nott, of Lansingburgh, exhibited a fine heifer.

Heifer calf—Best. John Lossing. Albany, 3; 2d, Milton Knickerbacker, Schodack. Trans

Bulls—Fine grade bulls and bull calves were exhibited by John Cross, of Oneida co., and by Silas Sweetland, Clifton Park, Saratoga co.

WORKING OXEN—OVER FOUR YEARS.

Best team from any town, not less than ten yoke, William Strever, Kinderhook, $25; Best yoke of oxen, James Wadsworth, Geneseo, 20; 2d, Elon Sheldon, Sennett, Cayuga, 15; 3d, John P Beekman. Kinderhook, 5.

Discretionary.—Lemuel Hurlburt. Winchester, Conn., 25; Wm Cowles, Farmington. Conn., 15; R Mesick, Kinderhook, 5; J H B Church, Vernon, Oneida co., 5; Arden Woodruff, Wyoming co., 5; James H Sherill, New Hartford, 5; John Drydon Westmoreland, 5; Henry B Bartlett, Paris, 5; Joseph Haswell, Hoosick, 5.

STEERS—THREE YEARS OLD.

Best single yoke, John Muir, sen., Hamilton, Madison co., $10; 2d, do., B H Streeter, Clyde, Wayne co., 8; 3d, James S Wadsworth, Geneseo, Trans. and 3. A premium of $5 is awarded to the steers of Elon Sheldon, Sennett, Cayuga co.

STEERS—TWO YEARS OLD.

Single yoke—Best, S A Gilbert, Hamilton. Madison co., $10; 2d. B. Benedict. Greene co., 8; 3d, James H Sherrill, New Hartford. Trans. and 3. Boys under 16 for training—Best. John N Benedict. Greene co., silver medal; 2d, Luther Comstock. Clinton. Oneida co., Trans and 3. To S A Gilbert an award of 2 for training is recommended.

STEERS—ONE YEAR OLD.

Single yoke—Best. John H Sherrill, New Hartford, 8: 2d. S A Gilbert, Gilbertsville, Otsego co., 5; 3d, James D Van Vechten. Schodack. Trans. and 3; Lewis E Smith. Half-moon, Trans.; H B Bartlett. Paris, do. Farming steers—1st, S A Gilbert, sil. med; 2d, John H Sherrill, Trans. and 3.

MILCH COWS.

Best milch cow, S P Chapman, Clocksville, Madison co., 20.

FAT CATTLE—STALL FED.

Fat oxen, 4 years old—Best. Edward Munson, Sennett. Cayuga, weigh 5,347 lbs., 25; 2d, A Ross, Preston, Chautauque. weigh 4.112 ½ lbs., 15; 3d, John H Boyd. weigh 4 017 ½ lbs., 10. Single ox, over 4 years old—Best. James S Wadsworth. Geneseo. weight 2.247 lbs., 15; 2d. Jas. S Wadsworth, Geneseo, wt. 2,147 ½ lbs., 10. A Osborn, of Watervliet. had an ox 13 years old that is commended for notice. Fat cows. over 4 years old—Best, J M Sherwood. Auburn, wt. 1,765 lbs., 15; 2d. Aaron Taylor. Arden. Erie co., wt. 1.855 lbs., 10. Fat steers. 4 years or under—Best, Elon Sheldon, Sennett, Cayuga co. 10; 2d, Milton Knickerbacker. Schodack, 6.

FAT CATTLE—ON GRASS.

Oxen. over 4 years old—Best, Elon Sheldon, Sennett. Cayuga. 20; 2d, James H. Sherrell, New Hartford. 12; 3d, Hiram Sheldon, Sennett, 8. Cows, over 4 years—1st, Luke Putnam, Warsaw. Wyoming, 10; 2d. George Vail, Troy, 6; 3d. G Lee. Cambridge. Washington. 4. Fat steers, 4 years or under—Best, Jas. S Wadsworth. Geneseo. 12 Heifers—Best, Joseph Haswell, Hoosick, 8; 2d, Elon Sheldon, Sennett, 3.

FAT SHEEP.

Long Wooled. over 2 years old—2d best, Richard Gypson, Oneida co., 3. Middle Wooles. 2 years and over—Best. J M Sherwood. Auburn, 5; 2d. T B Wakeman. Herkimer, 3; 3d. J McD McIntyre. Albany, Morrell's Shepherd. Middle Wooled Lambs—Richard Gypson, a discretionary premium; Fat Sheep. D R Dix, Vernon. Oneida co, do.

FOREIGN CATTLE.

To Roswell L Colt, of N. J., for his specimen of Hungarian Cattle, as a commendation for his enterprise. a diploma; also, the Society's thanks to J. Watson Webb, who sent them out. A diploma to J. Baldwin, Vt., for specimens. Working oxen—1st. Wm. L Cowles, Ct., 20; 2d. Lemuel Hurlburt. Ct., 15. Short Horns—Best Bull, George Miller, Canada West, 25; 2d best. P Lathrop, S Hadley, Mass., dip. and 10. Cows—2d premium, George Miller, C. W., 15. For a bull calf, same. dip. Devons—1st. Samuel Hurlburt, Winchester. Ct., "Bloomfield." dip. and 25; 2d, Wm R Sandford. Orwell. Vt., 15; 3d. Wm. L Cowles. Ct., 15. Yearling Bulls—1st, same. 15. Bull Calves—Wm. R Sandford, Vt. 10.—Devon Cows—1st. Wm. L Cowles, dip. and 25; 2d, Lemuel Hurlburt, Ct., 15; 3d, Wm. L Cowles. 5. Yearling Heifers—Best, same. 15. Heifer Calves—1st, Samuel Hurlburt. discretionary; 2d, W L Cowles. Trans. Ayrshire Bulls—1st, R L Colt, N. J., dip. and 25; 3d, E W Woodford. Ct., Trans and 5. Cows—1st. R L Colt, N. J., dip. and 25. Also, a dip. for 2 yr. heifer. Alderny Bull—Best. R L Colt. 25. Cow, same, 25. Also a diploma and thanks for bull and heifer.

HORSES OF ALL WORK.

Stallions of all work—Best. J T Grant, Junction. Morses Gray; 2d do., John L Bennett, Montgomery co., Sir Henry; 3d do. C Canfield. Poughkeepsie, Young Andrew; 4th do., Foster Breed. Crown Point. young Black Hawk. Brood Mares—Best, E Corning, Albany, bay mare, Brown Colt; 2d do.. G Van Olinda. Watervliet, gray mare, Bay Colt; 3d do., P F Mesick. Columbia co, sorrel mare, Sorrel Colt.

A special premium of $20 was awarded to William M Bullock. of New Scotland, for his very superior brood mare and foal.

THOROUGH BRED HORSES.

Best, Mortimer De Mott. of New York. for imported "Trustee," 20; 2d. O K. Lapham, of Keesville, Essex co, for imported "Leopard." 12. J B Burnett of Syracuse, for imported "Consternation," a special premium is recommended for his superior merit, he having received the Society's first premium already. Wm M Huff, of Buffalo. for his imported horse "Lance," which received the first premium of the Society at the fair of last year, a special premium is recommended.

THREE YEARS OLD, STALLIONS AND MARES.

1st best stallion 3 years old, Philip Hoornbeck, of Rochester, Ulster co., 15; 2d, A H Jaqueth, Fonda, Mont. co, 10; 3d. Harvey Kimberlee, Columbia co. Youatt; 4th. Wm. Hunter Watervliet, Albany co., Trans. 1st best mare, J D Kingsland. Clinton co., 15; 2d, Peleg Cross, jr., Columbia co., 10; 3d, John M Taylor, Otsego co., Youatt; 4th, John McCormick. Bethlehem, Albany co., Trans.

TWO YEARS OLD, STALLIONS AND MARES.

1st best stallion, 2 years old, Garret Van Olinda, Watervliet, Albany co., 10; 2d, John Muir, sen., Hamilton, Madison co., Youatt ; 3d, Isaac Bink, Greenbush, Rens. co., Trans. 1st best mare, Isaac T Grant, Junction, Rens. co., 10 ; 2d, S A Gilbert, Hamilton, Madison co., Youatt ; 3d, Daniel J Day, Granville, Wash. co., Trans.

ONE YEAR OLD COLT.

1st best stallion, Wm. Stuver, Kinderhook, 5 ; 2d, Isaac Hoag, Easton, Wash. co., Youatt ; 3d, Abraham Oliver, New Scotland, Trans.

MATCHED HORSES FOR CARRIAGES.

1st best pair matched horses, J B Plumb, Albany. dip. and 15 ; 2d, Wm. C Durant, Albany, 10 ; 3d, Theodore S Faxton, Utica, 8 ; 4th, John B Borst, Montgomery, 5.

MATCHED HORSES FOR DRAUGHT.

Best pair of matched horses, John Butterfield, Utica, 10 ; 2d, Jagger, Treadwell & Perry, Albany, 8 ; 3d, Mr. Truax, Albany, 5.

GELDINGS.

Best Gelding, Lewis S Smith, Mechanicsville, Soc. dip. and 10 ; 2d. Theo. S Faxton. Utica, 8 ; 3d Nathan Morgan, Victor, Mad. co., 6 ; 4th. Silas W Toby. Hudson, 4.

FOREIGN HORSES.

Best Blood Stallion, over 4 years —Thomas Leach, Canada West, Reindeer, dip. and 20. Best Stallion of all work—Wm. Walker, Vt., Morgan, 14 years old, dip. and 20 ; 2d, Amos Bigelow, Bridgport, Vt., 10. Best draught stallion—Elisha Norton, Chelsea, Vt, dip. and 20 ; 2d, David Lawrant, Canada, 10. Best brood mare—Wm. L Cowles, Farmington, Ct., dip and 20. Best pair matched horses—Andrew Holmes, Addison, Vt., 10 ; 2d, B B Foss, Kelsey, Vt , pair of Morgan matched horses, 10. S D Harlan, of Hartland, Vt., having received the premium last year on his horse "Gray Hawk," receives the Society's certificate at this exhibition.

A discretionary premium of a silver medal is also recommended to Messrs. Reynolds & Ness, of New York, for a pair of 2 year old mules.

SHEEP, LONG WOOLED.

1st best Bucks over 2 years—Winants Younghans, Rensselaer co., 10 ; 2d, John A Rathbun, of Otsego co., 8 ; 3d, John C Collins, Columbia co., 5. Best buck, 2 years or under—B J Hays, Montgomery co., 10 ; 2d, Richard Gibson, Oneida co., 8 ; 3d, B J Hays, Mont. co., 5. Best pen 5 ewes over 2 years—John A Rathbun, Otsego co., 10 ; 2d, Winants Younghans, Rens. co, 8 ; 3d, Wm Rathbun, Springfield, Otsego co., 5. Best pen 5 ewes, 2 years or under—John A Rathbun, Otsego co , 10 ; 2d, J C Rathbun, Otsego co., 8 ; 3d, E Scace, Watervliet, Albany co., 5. Best pen 5 Buck lambs—Winants Younghans, Rens. co., 8 ; 2d, Wm Rathbun, Otsego co., 3 and Morrell's Shepherd. Best pen 5 Ewe lambs—Winants Younghans, Rens. co., 8 ; 2d, John A Rathbone, Otsego co., 3 and Morrell's Shepherd.

MIDDLE WOOLED SHEEP.

Bucks over 2 years old—Best, J M Sherwood, Auburn, 10 ; 2d and 3d to be divided between F M Rotch, of Butternuts, and J McD McIntyre, of Albany, 13. Bucks under 2 years—Best, Z B Wakeman, Herkimer, 10. Pen of 5 Buck lambs—Best, Z B Wakeman, 8 ; 2d, J McD McIntyre, Morrell's Shepherd's book and 3. Ewes over 2 years—1st, J M Sherwood, 10 ; 2d, F M Rotch, 8 ; 3d, Z B Wakeman, 5. Ewes under 2 years—Best, Z B Wakeman ; 2d do., do., J McD McIntyre. Ewe lambs—Best, Z B Wakeman, J McD McIntyre, Morrell's Shepherd's book and 3. All the sheep of this class, to which premiums were awarded, are full blood South Downs.

MERINOS.

Best Buck over 2 years—M N Dart, Harpersfield, 10 ; 2d, Owen Lathrop, Darien, 8 ; 3d, Joseph Haswell, Hoosick, 5. Best Buck 2 years or under—L H Yates, Darien, 10 ; 2d, Lewis G Collins, Dutchess co., 8 ; 3d, J M Sherwood, Auburn, 5. Best pen 5 ewes over 2 years—R E Keese, Ausable, Clinton co., 10 ; 2d, L H Yates, Darien, 8 ; 3d, Francis M Rotch, Otsego co., 5. Best pen 5 ewes, 2 years or under—Lewis G Collins, Dutchess co., 10 ; 2d, Robert E Keese, Clinton co., 8 ; 3d, L M Dart, Harpersfield, 5. Best pen 5 Buck lambs—L G Collins, Dutchess co., 8 ; 2d. R E Keese, Clinton co., 3 and Morrell's Sheherd. Best pen 5 Ewe lambs—R E Keese, Clinton co., 8 ; 2d, L G Collins, Dutchess co., 3 and Morrell's Shepherd.

SAXONS.

Best Buck over 2 years—S H Church, Oneida co., 10 ; 2d. Ransom & Baker, Hoosick, 8 ; 3d. Joseph Haswell, Hoosick, 5. Best Buck 2 years or under—S H Church, Vernon, Oneida co., 10 ; 2d, Ransom & Baker, Hoosick, 8. Best pen 5 ewes over 2 years—S H Church, Vernon, Oneida co., 10 ; 2d, Joseph Haswell, Hoosick, 8. Best pen ewes 2 years or under—S H Church, Oneida co., 10 ; 2d, Ransom & Baker, Hoosick. 8 ; 3d, Frederick Phelps, Schodack, 5. Best pen 5 Buck lambs—Ransom & Baker. Hoosick, 8 ; 2d, Joseph Haswell, Hoosick, 3 and Morrell's Sheperd. Best pen 5 Ewe lambs—Joseph Haswell, Hoosick, 8 ; 2d, Ransom & Baker, Hoosick. 3 and Morrell's Shepherd Best sample of Wool, not less than ten fleeces, (as in Merino Class)—J P Beekman, Columbia co., Sil. Med.

Best Shepherd Dog—John Campbell. Middlebury, Vt , 5 ; 2d, Robert Middlemost, West Meredith, Delaware co., Morrell's Shep.

NATIVE AND GRADES.

Best Buck over 2 years old—Daniel Curtiss, Canaan, Col. co., 8. Best Buck under 2 years—1st, Daniel S Curtis, Canaan, Col. co , 10 ; 2d, R C Derrick, New Brunswick, 8. Best pen 5 Ewes over 2 years—1st, Daniel S Curtis, Canaan, Col. co., 10 ; 2d, E R Dix, Vernon, Oneida co., 8. Best pen 5 Ewes under 2 years—2d, Daniel S Curtis, Canaan, Col. co., 8. Best pen 5 Buck lambs—2d. Daniel S Curtis, 3 and Morrell's Shepherd. Best pen of 5 Ewe lambs—1st, Richard Gypson, Westmoreland, 8 ; 2d, Daniel S Curtis, 3 and Morrell's Shepperd.

FOREIGN SHEEP—LONG AND MIDDLE WOOLED.

Long Wooled—Best Buck, Markham, C. W., 10. Best pen of 5 Ewes, same, 10. Middle Wooled—Best Buck, same, 10. Best pen of 5 Ewes, same, 10. Best pen of 5 Buck lambs, same, 5.

MERINO AND SAXONS.

Merino—Best Buck, John Campbell, Middlebury. Vt., 10. Best pen of 5 Ewes, Jesse Hinds, Rutland. Vt., 10. Best pen 5 Buck lambs, Geo. Campbell, Westminster, Vt., 5. Best pen 5 Ewe lambs, same, 5.

Saxons—Best Buck, C B Smith, Walworth Ct., 10. Best pen 5 Ewes, same, 10. Best pen 5 Buck lambs, George Campbell, Westminster, Vt., 5.

SWINE.

Best Boar, 1 year old—Winant Younghans, Rens. co., 10 ; 2d, James P Noxon, White Creek, Wash. co., 5. Best Boar under 1 year—Wm. Webb, Darien, 8 ; 2d, Wm. Comstock, Lawrence, Otsego co., 3. Jacob Taylor, Rens. co., a boar 4 years old, highly recommended. Best breeding sow over 2 years—Wm. Comstock, Otsego, 10 ; 2d, Wm. Hurst, Albany, 5. 2d best breeding sow, 1 yr. old, Lawrence Salisbury, Lansingburgh, 5. Best sow under 1 year, Wm Hurst, Albany, 8. Best lot of pigs, not less than 5 and under 10 months, R C Derrick, New Brunswick, 10. Samuel Morgan, Watervliet, pair Suffolk pigs, very fine, 3.

PLOWS.

Best sod plow for stiff soil, not less than 7 inches—Prouty and Mears, No. 30, Boston, dip. and 15 ; 2d, Miner & Horton, Peekskill plow No. 21, 10. Best sod plow, for light soil, furrows 6 by 12 inches—Prouty & Mears, Boston, No. 25, dip. and 15 ; 2d, W U Chase, Amsterdam, Amsterdam Plow. No. 7, 10. Best plow for fallows or old land—Prouty & Mears, Boston, No. 5 1-2, dip. and 10 ; 2d, Miner & Horton, Peekskill Plow, No. 21, 8. Best subsoil plow, Prouty & Mears, Boston, dip. and 8. Best side hill plow, Bosworth, Rich & Co , Troy, dip. and 8.

FARM IMPLEMENTS, NO. I.

Best farm wagon, Chris. Snyder, W. Sand Lake, Rens. co , 5 ; best harrow, J & R Downer, Castleton, Rens., 5 ; best com. cultivator, Emery & Co., Albany, 3 ; best fanning mill, J G Grant, Junction Port, Ohio, 5 ; best corn stalk cutter, Reuben Daniels, Woodstock, Vt., 5 ; best straw cutter, Wm. Henry, Worcester, [illegible] by horse power, [illegible] Albany, 5 ; best horse rake, R H Chase, E Livermore, Me., 2 ; best ox yoke, Emery & Co , Albany, 2 ; best roller for general use, same, 5.

Discretionary.—S Hosack Mix, large plank road car with "oscillating roller axle," sil. med. One or two seat carriage, Long & Silsbee, Albany, large sil. med. One horse sleigh, Muller & Skinner, Fort Ann, Wash. co., small sil. med. Barouch and open buggy, Lown & Bunker, Troy. sil. med. Lawrence coach, covered sleigh, two seated sleigh and a one horse sleigh, square. sil. med. and dip. Omnibus, Eaton, Gilbert & Co., Troy, small sil. med.—Miscellaneous articles, for general garden purposes, Emery & Co , Albany, large sil. med.

FARM IMPLEMENTS, NO. II.

Best carriage harness, Lyman J Loyd, Albany, 3 ; best churn, Emery & Co., Albany, 2 ; best cheese press, Hezekiah Rogers, Clifton Park, Saratoga co., 2 ; best grain cradle, Nichols & Boles, Van Buren Centre, Onondaga, 2 ; for a lady's saddle, L J Loyd. dis. prem.; patent Shefto saddle, E B Slason, Albany, do.; best six hand rakes, David Ray, Chatham, Col. co., 2 ; best garden rakes, S C Blair, Farmington, Ct., dip ; best hay fork, D J Millard, Paris, Oneida co., 2 ; best straw forks. same. 2 ; best grass scythes, same, 2 ; best manure forks, same, 2 ; best hay rigging, Wm. P Coonradts, Brunswick, Rens. co., 2.

Discretionary.—Grass scyths, and snaths, Draper, Brown & Chadsey, Troy. 2 ; butter ladles and prints. St Paul Seeley. Morris, Otsego, 2 ; shovels and spades, Emery & Co . Albany. 2 ; largest assortment of useful farm implements. same. dip.; potato diggers, Henry Patridge & Son, Medfield, Mass., 2 ; hoes, S P Reynolds, Unadilla Forks. 2.

FARM IMPLEMENTS, NO. III.

Best horse power, on endless chain principle. Emery & Co., dip, and 3 ; best thresher. Eddy & Co., dip. and 5 ; best seed planter, for hand or horse power, J P Groshen dip. and 3 ; best grain drill. P Seymour, dip.; best portable saw mill Emery & Co., dip.; best corn sheller, horse power, same. dip.; best do., hand, same. dip.; best vegetable cutter, V H & N Hallock, dip ; best and most numerous collection of agricultural implements, Emery & Co., dip. and 20 ; best do., made in New York, same, dip. and 20.

MACHINERY AND IMPLEMENTS, NO. IV.

Steam engine for agricultural purposes on the farm, Hoard & Bradford, Watertown, Jefferson co., silver medal, on condition that the proprietor furnishes a description of machine, accompanied by a model to be deposited in the Society's Museum ; sliding cut-off valves for steam engine, S P Winne Albany, sm. med ; patent rotary sewing machine, Lerowe & Blodget, New York, sil. med.; buck moulding machine, Baker & Gifford, Troy, dip.; dairy steamer, Harry Bushnell, Utica, dip.; two cornstalk and straw cutters, E & T Burrell, Seneca, sil. med.; three cylinders of knives for straw cutters, Wm. Hoag, Mass., sil. med.; two King's railway washing machines, Van Zuyle & Coons, Lansingburgh, dip.; spring tooth harrow, attached to broad cast sower, S S Sage

Broome co., dip. Grain and seed sower, with plow attached, Samuel Davidson, Greece, Mon. co., dip. B D Saunder's winnowing machine, Albert Bates, Shanesville, Ohio, sil. med. Quack rake and sod cutter, S Cheever, Bemis Heights, Sar. co., small sil med. Wm. Crossdale's plow and seed drill, W H Kerr, Philadelphia, small sil. med. and dip. Myers' patent water filterer, Gideon Myers. Little Falls. dip. Patent dog power, for churn, Bosworth, Rich & Co, Troy, small sil. med. Patent for connecting and disconnecting wheel hubs and axles, Billings & Ambrose, Claremont, N. H.. sil. med.

GRAIN, FLOUR AND SEEDS.

Best winter wheat. Samuel Davidson Greece. Mon. co., 5 ; 2d, Obadiah Howland, Owasco. Cayuga co, 3. Best spring wheat, George H Ells, Clinton. Oneida co., 5 ; 2d. H B Bartlett. Paris Hill. Oneida co, 3. A sample of Australia wheat. Seatucket, Suffolk co, vol. Trans. Best sample of peas. Obadiah Howland. Owasco, Cayuga co.. Norton's Ag. Best oats, H B Bartlett. (Purdy's oats) Paris Hill. Oneida co, 5 ; 2d. do., 3. Best barley, E R Dix. Vernon, Oneida co, 5 ; 2d, Obadiah Howland. Owasco, 3. Best barrel of Indian corn, Obadiah Howland, there being no other and that not superior, Norton's Ag. Best sample of 12 ears of corn. Rawson Harmon. Wheatland, Mon. co., Trans.; 2d, Wm. Baker, Lima, Liv. co., Trans. Best buck wheat. Wm. P. Conradt, Brunswick, Rens. co., 3 ; 2d. do., Hamilton Morrison, Montgomery, Orange co., 2. Flaxseed, a sample by Luman Shepard. Skaneatlas, there was no competition, Norton's Ag. Best Timothy seed, Robert Elles, Clinton, Oneida co., 3 ; 2d, Luman Shepard, Skaneatlas, 2. A sample of Teazers. Luman Shepard. Skaneatlas, Norton's Ag.—Best barrel of flour, C P Willis, Dresden. Yates co., sil. med.; 2d, R H Morris, Geneva, Ont. co.. vol. Trans. Forty varieties of wheat, R Harmon, Wheatland. Mon. co.. sil. med. Case of wheat grits. pearled barley. &c., C N Bement, Albany, vol. Trans.

APPLES AND PEARS.

For the largest and best varieties of good table apples, 3 of each variety, named and labelled by exhibitors. Ellwanger & Barry. Rochester, Diploma and Hoveys colored Fruits ; 2d, Jonathan Battey. Keesville, Clinton co., 5 ; 3d. Henry Vail, Troy, Trans.—For the best 12 varieties of table apples—1st, to Jonathan Battey, of Keesville, 5 ; 2d. E P Prentice. Albany, Trans. and 2. Best basket of standard fruits, to Henry Vail, Troy, sil. med. For the largest number of varieties of good pears—1st. Ellwanger & Barry, Rochester. dip. and Hovey's colored fruits ; 2d, Henry Vail. Troy. 5 ; 3d, Wilson, Thorburn, and Teller, Albany, Trans. For the best and largest collection of Autumn pears, named and labelled—1st, Ellwanger & Barry, Rochester. dip. and 5 ; 2d. Dr Herman Wendell, Albany, Trans. and 2.

PEACHES, PLUMS AND NECTARINES.

Best 6 varieties, named and labelled, Alden Marsh, Albany, dip. and 5. Best 12 do., H G Dickerson, Lyons. 2. Best seedling variety, 6 specimens, Elisha Dorr. Albany. 3. Plums—Best collection, 6 of each. Isaac Denniston, Albany. dip and 5 ; 2d. A Marks, Durham, Greene co.. 3. Best 4 varieties of good, 6 each, Elisha Dorr, Albany. 3 ; 2d, A Marsh, Albany 2 Best 12 plums, choice variety, Wilson, Thorburn & Teller, 2. Seedling plums, I Denniston, Albany, 5.

QUINCES, GRAPES, &c.

Grapes—Best native, grown in open air, Daniel Ayres, Amsterdam ; 2d, Elisha Dorr, Albany. Native and foreign—Best 2 varieties, under glass, H Vail, Troy ; 2d. S P Van Rensselaer, Clinton Point. Best dish of native grapes, James Goold, Albany. Quinces—Best 12, Elisha Dorr, Albany ; 2d, John S Goold, do. Currants—Elisha Dorr, Thomas' Fruit Culture. Watermelons—Best specimen of any variety. H Vail. Troy. Muskmelons—Best, John Dingwell, Albany ; 2d, C F Crossman, Rochester. Best collections, E P Prentice ; 2d, W A McCulloch. Greenbush, Thomas' Fruit Culture. Cranberries -Best peck, domestic culture, James Cantine, Westchester, Trans.

FLOWERS.

Greatest variety and quantity of flowers, James Wilson, Albany, 5 ; 2d do.. Ellwanger & Barry, Rochester, 3. Dahlias—Greatest variety, Jas. Wilson, Albany, 5. Best 24 dissimilar blooms, Ellwanger & Barry. Rochester. 3 ; do. single dahlia, L Menand, Albany, 2. Roses—Greatest variety, L Menand, Albany, 5. Best 24 dis. blooms, Jas. Wilson, 3 ; 2d do., Ellwanger & Barry. Rochester. 2. Phloxes—Best six. varieties, Jas. Wilson, Albany, 3 ; do. seedling. do, 2 Verbenas—Greatest variety, Ellwanger & Barry, Rochester, sil. med.; best 12 varieties. Jas. Wilson, Albany, 2 ; do. seedling. Ellwanger & Barry, Rochester, 2. German Astors—Best col., Jas. Wilson, Albany, sil. med.; 2d do, Ellwanger & Barry. Rochester 2. Pansies—Best and greatest variety, Ellwanger & Barry, Rochester 3 ; 24 varieties, 2. Greatest variety and show of flowers. John Dingwell. Albany. sil. med ; 2d do, Mrs. Newcomb, Pittstown, 3. Dahlias—Greatest variety. Norman Briggs, Schenectady. sil. med.; best 12 dis blooms, 3 ; 6 varieties, Edward Van Alstyne, Greenbush, 2 ; single variety, Norman Briggs, sil med. Roses—Greatest variety, Mrs. Henry Morgan, Aurora, Cayuga co.. sil. med.; 2d, E S S Martin, Willow Brook, 2 ; best 6 distinct blooms, Dr. Alx. Thompson, Aurora, 3. Phloxes—Best 6 varieties, Dr. H Wendell. Albany, 3 ; 3 varieties, do. do., 2 ; seedling. do., 2. Verbenas—Greatest variety, John Dingwell, Albany, sil. med.; best seedling, Mrs. E S S Martin, Willow Brook, Cay. co., 2 ; do. 6 varieties, D T Vail. Troy. 3 ; do 8 do. do., 2. German Astors—Best col., Wm. Newcomb, Pittstown, sil. med.; 2d do, John Dingwell. Albany. 2. Panzies—Best and greatest variety, Wm. Newcomb, Pittstown, sil. med.; do. 6 varieties, Dr. H Wendell, Albany, 2.

General List, open to all competitors.—Best col. of green-house plants, owned by one person, L Menand, Albany, sil. med ; 2d. Jas. Wilson, Albany, 3. Best floral design, Dr. H. Wendell. Albany, sil med.; 2d, John Dingwell, Albany, 3. Best floral ornament. Mrs. Jas. T. Van Namee, Pittstown. sil. med ; 2d, Mrs. Wm. Newcomb, Pittstown, 3. Best hand bouquet, flat, Jas. Wilson. Albany, 3 ; 2d, do. do., 2. Best hand boquet. round. Jas. Wilson, Albany, 3 ; 2d, do do.. 2. Best basket with handle, Mrs. Wm. Newcomb. Pittstown, sil. med. Flowers—Beautifully arranged basket of flowers, D T Vail, Troy. sil med. Best floral exhibition of any Horticultural Society. L Menand, Albany, sil. med. A col. of dried plants and flowers, Mary M Chase, large sil. med. Two vols. of Floral Treasures, Elisa E Carey, small sil. med. Collection of 400 dried plants, Elisa Ellen Ehle, Canajoharie, small sil. med. Herbarium of the Pine Grove from Albany county, Alex Kirkwood, small sil. med.

PREMIUMS ON FOREIGN FRUIT.

Grapes—R S Colt, Patterson. N. J, 1st premium, a sil. med. and vol. of Trans.; 2d, J W Hayes. Newark, N. J., Downing's Fruits Apples—C Goodrich, Burlington, Vt.. 1st premium. a sil. med. and Society's Trans. Canada crab apple—Benj. Brewster, Montreal, a vol. of Trans. Pears—J W Hayes, Newark. N. J.. 1st premium and sil. med., and a copy of Thomas ; C Goodrich. Burlington. Vt., 2d do., and a copy of Downing's Fruits. Peaches—Dr. J M Ward, Newark, N. J., a vol. of Thomas. A complimentary premium, a vol. of Society's Trans., to Jasper Curtis, of St. Albans, Vt., for seedling apples and pears.

PLOWING MATCH.

1st, S G Smith, owner and plowman, team and Trojan plow. 10 ; 2d, John Randerson, of Schodack, with the Randerson plow, 8 ; 3d. N French, Rome, Oneida co., double plow, Thos. Williams plowman, 5 ; 4th, Eddy & Co., Union Village, Wash. co., wrought iron beam plow, Jas. McDougall plowman, vol. Trans.

THE COW AGAIN.

Messrs. Editors: — In the June number of the Farmer is an article of mine, asking Mr. Wright to travel to Covert, and see a cow of mine that can fill two ten quart pails at one milking, which he has not even noticed ; but "S. W." says that Joseph Wright must have some better evidence of a forty quart cow, before he goes to Covert with his $500.

Now, Messrs. Editors, all I asked was for him to come and see for himself, and not take any statements of mine. As he is a man of so much travel and practice, I supposed that he would have taken that little trouble. But no ; all his attention is paid to Mr. Johnson's dry cow — offering to bet one hundred dollars that his Waterloo cow will out-milk her. Now, sirs, I am not a betting man ; but I will "stump" the county, Waterloo and all, and the State too, to out-milk my cow. As he has not noticed my article, we think him inclined to back out of the $500 operation. I now inform Mr. W. that I am not anxious to part with my cow, as she still sustains the facts stated. One of the pails that I milk her in holds ten and the other thirteen quarts, by actual measurement. I should have been happy to have seen Mr. Wright at my house, and would have welcomed him while he stayed. Wm. Henry Smith.—*Covert, Sen. Co., N. Y., Sept.*, 1850.

Wintering Stock.—*Messrs. Editors*— It is now a good time to provide for wintering calves and colts. The way I do is to build a small stack of hay, about one and a half tons, around a small tree or large pole set firmly in the ground. In this way the stack can not fall over on them. It affords a good shelter from storms and cold, and they will waste but very a little or none. Winter before last I had one colt and one calf. I put them to a small stack when winter set in. They agreed very well ; and in the spring they came out in good condition, without grain. There should always be open or running water at hand. Nathaniel Smith.—*Gorham, Ontario Co., N. Y., August*, 1850.

Green muskmelon fried like egg plant is fine.

MR. SHEAFE'S SALE OF IMPROVED STOCK.

A FRIEND who was present has kindly furnished the following particulars of Mr. SHEAFE's sale. It will be interesting to our readers to know the prices at which the different animals sold.

This great sale came off at the High Cliff Farm, Dutchess county, N. Y., as advertised, on the 29th of August.

At 12 o'clock, M., upwards of 300 persons had assembled upon the ground, many of whom were opulent farmers of the neighborhood, and gentlemen from distant parts of the country. The stock was tied in a row six feet apart, in the same order they were numbered in the catalogue, in a fine grass pasture, just west of the farmhouse. They presented a front of upwards of 200 feet length, and made a superb show. Though merely grass fed, the animals were in excelent condition, and reflected *no* little credit on the herdsman, Mr. Lawson, for his superior care in bringing them to the post. The whole thing was admirably arranged, and a gentleman present said it reminded him of the great sale of shorthorn cattle, which took place at Castle Howard, seat of the Earl of Carlisle, in England, in 1839.

A bountiful collation was provided under a large awning, of which the company were invited to partake, as they came on the ground. This finished and fifteen minutes grace allowed for laggers behind time, Mr. A. B. Allen — to whose care Mr. Sheafe had left the stock and farm—called the company to order at a quarter past one P. M., and proceeded to address them for about ten minutes, on the value of this stock to the dairymen and graziers of the country, and also as an additional ornament to the grounds of country gentlemen.

Mr. J. M. Miller, the auctioneer, now commenced sale. The bidding was highly spirited, and the 33 animals in the catalogue together with two others dropped since it was published, making 35 in all, were struck off within an hour. He then proceeded to the working cattle, sheep, and swine. which took nearly another hour. The pair of working cattle brought $142.50; the sheep and swine sold comparatively low. A few grade shorthorns, not advertised or put into the catalogue, were disposed of afterwards, at private sale. The sum total of the stock sales on that day, was a little over $5.000.

Although the prices obtained for this herd were not what they ought to be, to remunerate a careful breeder, still, they are so much higher than the same quality of animals would have brought at any time for the past seven years, that it looks more encouraging to the producers of improved stock. We trust that the farmers of America will yet have spirit and intelligence enough to arouse themselves to equal their English brethren on the other side of the Atlantic, who have long been, and still are annually reaping a rich harvest in the production of superior domestic animals.

No. 1. Dahlia 1st, calved June, 1836. A. L. Allen. Poughkeepsie, N. Y., $47.50.*

No. 2. Dahlia 3d, calved April, 1846. S. B. Parsons, Flushing, N. Y., $65.†

No. 3. Dahlia 4th, calved April, 1847. J. T. Moore, Rahway, N, J., $105.

No. 4. Dahlia 5th, calved April, 1849. George Vail, Troy, N. Y., 60 dollars.‡

No. 5. Beauty 3d, calved March 1845. Lorillard Spencer, Westchester, N. Y., 180 dollars.

No. 6. Beauty 4th, calved April, 1846. S. B. Parsons, Flushing, N. Y., 125 dollars.

No. 7. Beauty 5th, calved April, 1849. S. B. Parsons, Flushing, N. Y., 80 dollars.

No. 8. Phœbe 2d, calved April, 1844. William Kelly, Red Hook, N. Y., 145 dollars.

No. 9. Phœbe 3d, calved March, 1845. Lorillard Spencer, Westchester, N. Y., 160 dollars.

No. 10. Phœbe 4th, calved June, 1847. H. & J. Carpenter, Poughkeepsie, N. Y., 100 dollars.

No. 11. Phœbe 5th, calved March, 1848. George Vail, Troy, N. Y., $125.

No. 12. Phœbe 6th, calved March, 1850. S. B Parsons, Flushing, N. Y., $75.

No. 13. Phœbe 7th, calved April, 1850. Lorillard Spencer, Westchester, N. Y., $80.

No. 14. Lucilla 1st, calved June, 1837. Sick, and withdrawn.

No. 15. Lucilla 2d, calved April, 1846. S. B. Parsons, Flushing, N. Y., $125.

No. 16. Lucilla 3d, calved December, 1848. George Vail, Troy, N. Y., 125 dollars.

No. 17. Lucilla 4th, calved April, 1850. J. T. Moore, Rahway, N. J., 80 dollars.

No. 18. Cream Pot 2d, calved March. 1845. Lorillard Spencer. Westchester, N. Y., 175 dollars.

No. 19. Cream Pot 5th, calved April, 1846. Lorillard Spencer, Westchester, N. Y., 140 dollars.

No. 20. Cream Pot 6th, calved March, 1848. Phillip Burrows, Staten Island, N. Y., 125 dollars.

No. 21 Cream Pot 7th, calved April, 1848. H. & J. Carpenter, Poughkeepsie, N. Y., 145 dollars.

No. 22 Cream Pot 8th, calved March, 1850. J. C. Jackson, Astoria, N. Y., 50 dollars.

No. 23. Cream Pot 9th, calved March, 1850. J. B. Holmes, Croton, N. Y., 70 dollars.

No. 24. Seraphina 2d, calved March, 1845. S. B. Parsons, Flushing, N. Y., 105 dollars.

No. 25. Caleste 2d, calved March, 1848. J. Dickinson, Fordham, N. Y., 185 dollars.

No. 26. Daisy 1st, calved August 1843. S. B. Parssons, Flushing, N. Y., 90 dollars.

No. 27. Daisy 2d, calved April, 1850. S. B. Parsons, Flushing. N. Y., 50 dollars.

No. 28. Fun, calved September, 1844. Geo. Vail, Troy, N. Y., 170 dollars.

No. 29. Violet 1st, calved April, 1847. J. C. Jackson, Astoria, N. Y., 100 dollars.

No. 30. Violet 2d, calved April, 1850. —— Ellison, $55.

No. 31. Bull calf, dropped March, 1850. J. B. Holmes, Croton, N. Y., 105 dollars.

No. 32. Bull calf, dropped March. 1850. —— Margit, Long Island, N. Y., 105 dollars.

No. 33. Exeter, (imported,) calved June, 1848. L. F. Allen, Black Rock, N. Y. 500 dollars

No. 34 Seraphina 3d, calved May, 1850.. J. C. Jackson, Astoria, N. Y. 65 dollars.

No. 35. Bull calf, dropped by No. 20, Cream Pot 6th, August 25th, 1850. Phillip Burrows, Staten Island, N. Y.

The sale being finished, the company dispersed, seemingly highly gratified at the proceedings; though a few were somewhat disappointed that they had not been able to purchase within their limits. We understand an advance has been offered on several of the animals since their sale. We hope this may be an encouragement for larger and better sales hereafter, and that they may be got up in different parts of the country; for it is quite an advantage for the farmers to meet in this manner, to examine stock, and exchange ideas on various subjects connected with their calling.

DURHAM CATTLE, &c.

MESSRS. EDITORS:—While at Auburn, a few days since, I called at Col. SHERWOODS, and viewed his fine stock of Durham cattle, his Southdown and fine wooled sheep, &c., &c., which I found in fine condition. The celebrated imported bull, 3d Duke of Cambridge, [we give a portrait of this animal on the next page,] has improved wonderfully since I saw him at the State Fair at Syracuse, although kept without grain together with the three heifers of same importation, which have done remarkably well. I think they effect a great improvement in the Durhams, for milking purposes. For a further description of this stock, the reader is referred to the August number of the Genesee Farmer, page 183, vol. 10.

The imported cow "Red Rose 2d," owned by Col. SHERWOOD, is remarkable in her *figure* and *handling* qualities, giving this winter, from 18 to 20 quarts of milk daily, of superior quality. She was bred by JOHN STEPHENSON, Durham, England, and descended from the celebrated stock of Durhams known as the "Princess Tribe," remarkable for their milking properties, as well as their other good qualities. She was got by the celebrated bull Napier, her dam the famous cow Tuberose, by South Durham. Her grand dam is Rose Ann, by Bellerophon; g. grand dam, Rosette, by Belvidere; g. g. grand dam, Red Rose, by Waterloo; g. g. g. grand dam, Moss Rose, by Barron; and this might be extended for six generations; but enough is shown to satisfy any person of her superior blood. Her calf has the appearance of making her equal in all respects — both are nearly deep red — a great improvement, to my fancy.

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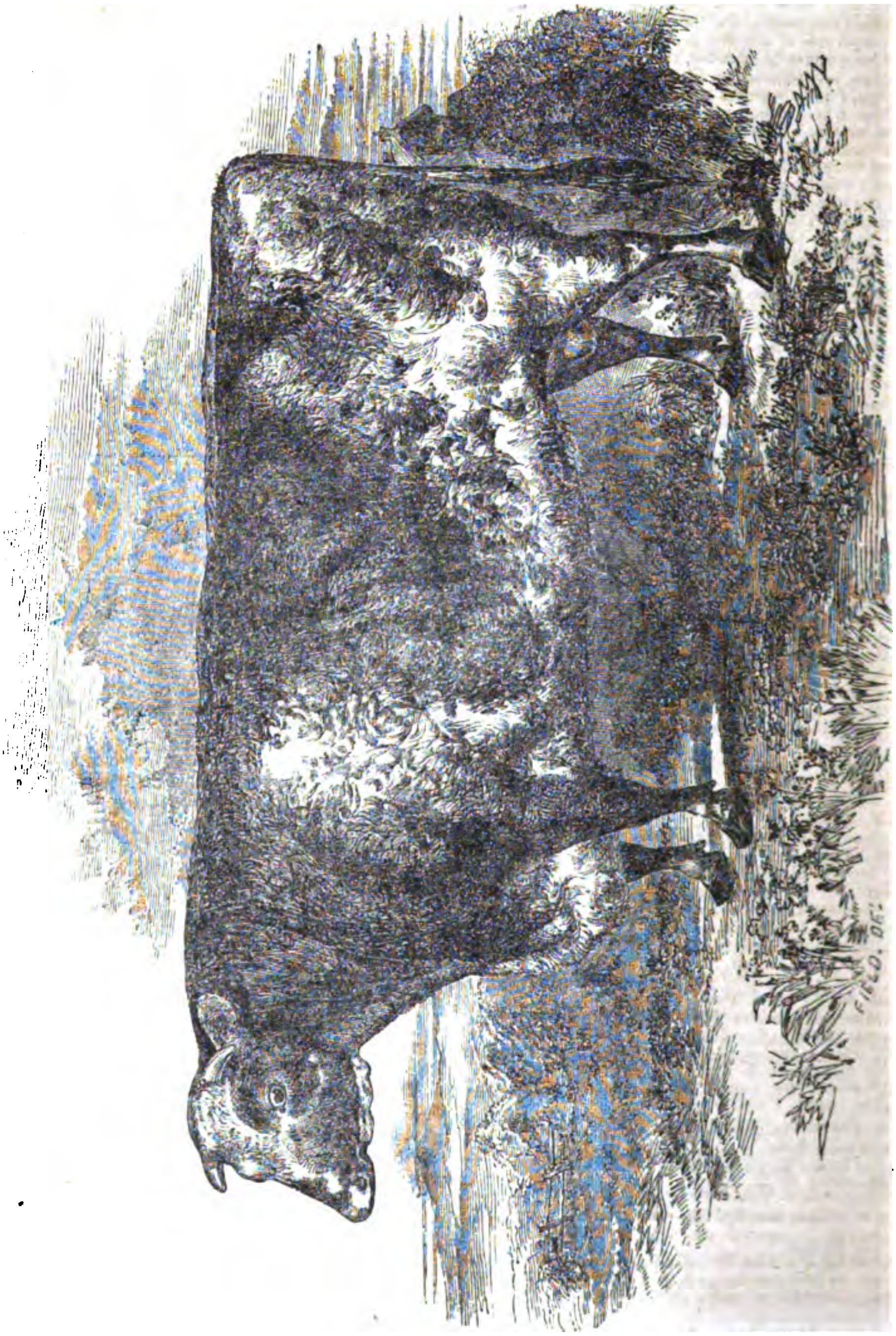
* Being fourteen years old, she was considered a doubtful breeder.

† Had lost one teat.

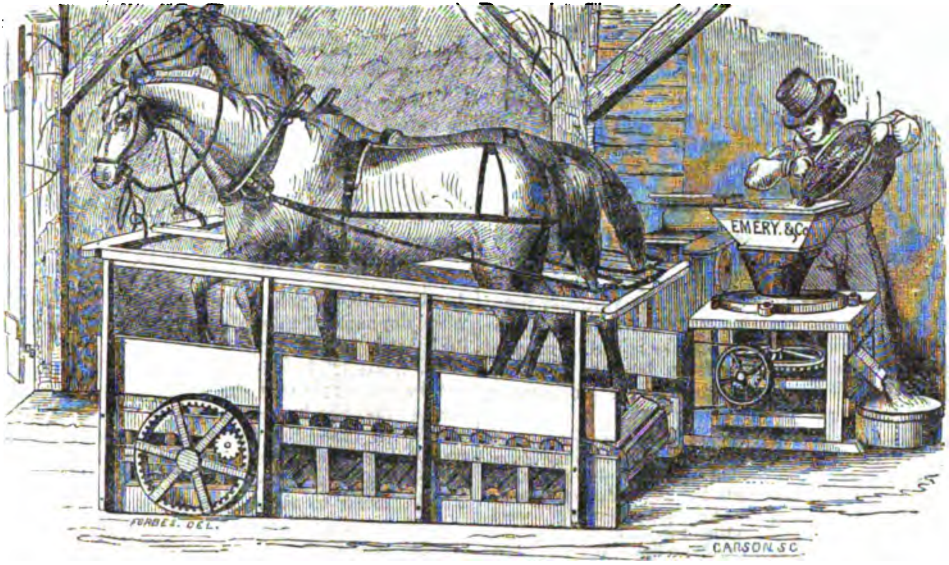
‡ Two gentlemen present informed us after the sale. that they had marked on their catalogues to bid $100 and $105 for this heifer, but by some unaccountable mistake had let her go.

The barns, stables, yards, sheds, their arrangement, with the several penstocks of running water, brought by *water rams* from a neighboring brook, make it well worth a farmer's attention to call while passing that way.

And now, Messrs. Editors, while writing upon this subject, I will just say that the county of Wayne never was so much waked up to the importance of thorough farming, and the agricultural spirit is spreading. E. N. Thomas.—*Rose, N. Y.*, 1850.



THIRD DUKE OF CAMBRIDGE


EMERY. &Co.
FORBES. DEL.
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NEW RAILROAD HORSE POWER AND FEED MILL.

The above cut represents a new Horse Power recently brought into notice by Messrs. **Emery** & Co., of the Albany Agricultural Works. By reference to the premium list, in another part of the paper, it will be seen that it obtained the first premium at the State Fair, as the best horse power on the endless chain principle. It is on the general plan of the approved endless chain powers sold by them for several years past. The principal difference is the manner of obtaining and applying the power and motion from the revolving platform to the shaft of the driving pulley. The following description is from the Albany Cultivator :

"This power, as will be readily seen in the cut, has the revolving plank platform, traversing upon its own friction wheels and iron railroad track. At the forward end, this platform is supported by its small shafts upon an iron reel about sixteen inches in diameter—the shaft of this reel extending beyond the sides of the frame work sufficiently to receive a strong converge or internal gear, about twenty-four inches in diameter, as seen in the cut.

"The shaft of the driving pulley, (which pulley is three feet in diameter,) is hung in like manner, with the small gear upon one end, operating inside the converge gear before described, and consequently receives an increased motion in the same direction, and carries the driving pulley on the opposite side of the power for driving the overshot thresher, without crossing of bands or intermediate gearing. The converge wheel is so arranged as to work on either side of the power, as may be desirable.

"This arrangement entirely removes all liability of breakage and wear of links and pinions (heretofore unavoidable,) as the direct stress upon the links working over small pinions is wholly avoided; and they are acknowledged by those using them to run with lighter friction, which it is said enables the power to be operated at a less elevation than by the former mode. The arrangement for tightening the endless platform by means of a joint bolt connecting with the bearings of the reel shaft, is new, and is a very simple and effectual mode of effecting this object, as it may be instantly done by a common wrench without stopping the machine. The platform is considerably longer than usual, avoiding the liability of large or unsteady horses stepping over or off at either end."

The cut also represents a valuable mill, capable of being driven with this power to good advantage, for grinding food for stock. A considerable number have been sold for several years past, and answer a good purpose. They are cheap, costing but $35, with one extra set of grinding plates, (new plates costing $2 per set,) and are capable of grinding 600 to 800 bushels per set, according to the fineness to which it is ground. This mill also obtained the first premium as the best corn and cob crusher. These are also made and sold by **Emery** & Co.

* * *

Remedy for Split Hoof.—*Eds. Gen. Farmer:* I send you a remedy for split hoof, which may perhaps be useful to some of your readers, if you choose to publish it. I had a valuable young mare calked in both fore feet the first time she was shod. In a few weeks, and after her hoofs had grown down about an inch, they cracked from the calks to the hair, rendering her very lame and almost useless. I tried the old practice of cutting across the top of the split, using round shoes, &c., without avail. The round shoes contracted her feet and increased the lameness. At length I went to a blacksmith and ordered a pair of thin iron plates, about six inches long and one and a half inches in width, (tapering towards the ends,) to fit the surface of the hoof, which I fastened on with very short screws, the upper edge of the plate just covering the upper point of the cleft. These I kept on, occasionally removing them when the mare was shod, and using meanwhile the "green ointment," to increase the growth and pliancy of the hoofs, until they were grown out. The experiment was successful, and I had no farther trouble. D.—*Castle Creek,* 1850.

* * *

It is fully as important to take good care of animals as it is to procure those which are good. If you can not attend to them yourself, see that those who have to do with them are humane and intelligent.

The Farmer's Guide — *Stephen's Book of the Farm.*—This is an English work, now published in numbers at two shillings each, by **Leonard Scott** & Co., of New York. It is a large work, and goes thoroughly into farm management, as practiced by the best farmers in England and Scotland. We have been unwilling to recommed it to our readers, as more than two-thirds of its plans and recommendations are not adapted to American farming. Still, it is a work that farmers may read with profit — giving them not only a knowledge of English agriculture, but many useful hints that any judicious farmer might avail himself of. We have just received the eighth number, which contains very valuable notes by Prof. **Norton**, pointing out such things in the body of the work as the Prof. thinks might be adopted with advantage by the American farmer. The following is Mr. **Norton**'s remarks on the preservation of liquid manure :

> The liquid manure tank is as yet a rare appendage to American farm-yards ; it is, however, one of such absolute necessity, that its general introduction will not be delayed, when our farmers begin to appreciate the true value of manure. As too many of our yards are now managed, a very considerable portion of the liquid manure, including washings from the solid matter, as well as the urine, is lost. When conducted immediately upon the land through a small ditch, as is frequently the case, it does harm rather than good, by rendering the small portion of land which it reaches quite too rich.
>
> One chief objection that I have heard urged against these tanks is, that they would be liable to fill up and overflow, with the large quantity of water which would be poured into them from the roofs, &c. It will he noticed that Mr. Stephens only intends them to receive the drainings of the yard, and of the manure itself ; as he arranges to conduct away all water from the roof and spouts, by means of seperate drains. The tank would thus be able to contain all that might run in from the yard alone. The liquid could be pumped out as described in 1115, or mixed with peat, ashes, &c, &c., in the tank itself. An excellent pump would be that consisting of an endless chain, with metallic plates attached regular distances, revolving in a wooden tube. — This would draw well, and not be easily choked. Urine, and liquid manure generally, soon begins to ferment, and then a loss of ammonia ensues. As the retention of this is very important, it is best to mix frequently in warm weather, a little sulphate of lime (gypsum), or a small quantity of sulphuric acid. In both cases sulphate of ammonia is formed, a salt which is not readily volatilized nor decomposed. A tank may he built in a very cheap way to answer every necessary purpose, and will soon pay for itself in the quality of the manure it will furnish. Professor Johnston states, that in Flanders the urine of a single cow is worth about $10 a year for manure. If we take half only of this sum, what an immense aggregate value in each year, is for the greater part entirely lost.
>
> The plan usually pursued, is to build the tank in some convenient situation, either in one corner, or just outside of the yard. The ground in the yard is so sloped that all of the liquid runs to a common centre, where a drain receives it, and carries it under ground to the tank. This may be built of brick or stone laid in cement with a smooth floor, or for temporary purposes of plank, lined at the back with clay. A tank can be made very cheaply in this latter way from old refuse lumber, and by the time that it has worn out, the farmer will be quite willing to build a permanent one of stone or brick, from experience of its benefits. In some cases drains are laid under the stables, where large stocks are kept for the purpose of conducting the urine to the main drain, and finaly, into the tank. Considerable quantites may be collected in this way if the floors are tight. A few pailfuls of water occasionally dashed through these drains for manure, would sweep away the thick deposit which might accumulate and gradually threaten to choke them. They should all be defended at their entrances by grating, so that straw, and manure of a solid kind, cannot wash in. All of these precautions may seem like unnecessary trouble; but in reality there are few things which pay so well and so soon, as some extra labor in collecting and preserving manure of every description, whether liquid or solid. Well protected, and well kept manure, is worth the double of that which has been soaked with rain, and bleached by the sun, during an entire season. In situations where it is not desirable to build a tank, it might be found a good plan to pave a shallow excavation in the centre of the yard, into which the drainings might flow, and be absorbed by long straw, chaff, &c., thrown in for that purpose. In this case also the rain water should be carried away in another direction, as otherwise there would be a stagnant pond formed. Such ought to be walled around for the purpose of preventing cattle from getting into them.
>
> I have seen receptacles of this kind in Scotland, and found that they seemed to answer the intended purpose very well.

S. W.'S NOTES FOR THE MONTH.

Jenny Lind.—Such is the blindness of enthusiasm when the name of this fair songstress is uttered, that its heart is soft only on one side — the best emotions of the heart hold criticism in abeyance. We doubt not for a moment that she is Nature's prodigy; and we feel that she has all the moral perfections, without any of the failings that flesh is heir to. Rising from a low estate to wealth and honor, she forgets not for a moment those she left behind her who had not the power to rise. She is not a creature to be spoiled by prosperity or the world's laudation ; for we are told that her sympathies are as kind, and pure, and simple, and ethereal, as the matchless tones of her voice. The *furor* to hear her sing is not by any means confined to the great Babylon, it extends throughout the length and breadth of the land.—What the consequences would be if railroad traveling was as cheap and certain as that on the steamers, none can tell. Suffice it to say the New York publicans would have to *colonize* the coming host of men and women.

Our Railroads.—The number of accidents on our railroads of late, involving broken bones and loss of life, occur so often, that, like deaths by cholera, they "fall upon the sense," &c. — begin to be considered as things in course. On board of a man-of-war, besides the officer of the deck and the whole gang of petties, there is a man whose especial business it is to watch over the helmsmen, lest they should get asleep and fall under the wheel. If these poor sailors sometimes get asleep without grog, how much more likely is Pat, the switch-tender on a railroad, to get asleep or to be overcome and stupefied when he has a *sup* of the *crature* hid in the woodpile, or in his shanty hard by. But or railroad directors, determined on large and speedy dividends, eschew petty officers and extra expense, hoping doubtless to realize profits before they incur damages. It was promised that after the first of last May the fare should be reduced on all but the Express trains. This has not been done ; and in order to compel the traveling public to go on the slow night trains, the express, which runs by daylight, passes at full speed through many large villages of some 4000 inhabitants, leaving passengers there to come on the slow or dirty emigrant trains as they can, at full fare. Such bad faith on the part of an individual not rich enough to give a sop to the press, or to conciliate legislation, would be thought sufficiently disgraceful to jeopardise his *locomotive* safety ; but a corporation has the advantage of an ubiquitous body, and no soul.

Tile Machine.—At Purdie's Foundry, in Waterloo, may be seen a beautifully wrought tile and pipe machine, made entirely of iron, after the plan of Whartenby's machine, imported by J. **Delafield**. This machine is an improvement on the imported one, whose ways were of wood instead of cast iron.

The dies are also improved. It is double acting — turning out tile or pipe at each end as fast as two men can take them away. This machine is sold for $275, to go to Summerville, New Jersey. It may be worked by hand, horse, or steam power, and is capable of moulding 5000 pieces a day.

In this age of agricultural progress and improvement, experiment has proved that under-draining is indispensable to the ecoeomical cultivation of at least half the earth's arable surface: hence the importance of every mechanical invention which goes to reduce the expense of under-draining.

Potatoes.—One short month ago it was supposed that our potato crop had escaped disease; since that time the vines in many fields have been prematurely dying — an unfailing symptom of disease in its worst form. Our amateur farmer, Jos. Wright, says that his English whites, planted last of April, ripened in fine order; but that his Mercers, and all other varieties planted later, are very much diseased. His soil is sandy loam, well drained and manured.—*Waterloo, N. Y., Sept.*, 1850.

Remarks.—We have felt compelled to withhold some remarks of S. W., on the subject of the *New Free School Law* of this State, much as we dislike to materially curtail or alter articles furnished by our friends for publication in the Farmer. Not half the readers of the Farmer reside in the State of New York, and we therefore thought it unwise to occupy our very limited space with a full discussion of *our* School Law. For this reason we have refused communications in relation to it. There are two sides to this question, and unless we were willing to open our columns to a full and fair discussion of the subject in all its important bearings, which we could not well do, the course we have pursued, to leave the subject to the local papers, appeared to us the only wise one. We have our own opinion, but as we have never expressed it in the pages of the Farmer, correspondents cannot complain, as we only impose the same restraint on them that we bear ourselves.

PEAT CHARCOAL MANURE.

The following interesting correspondence we take from the Mark Lane (London) Express:

To the Editor of the Mark Lane Express:—Sir —You challenged me to give public proof that *peat charcoal* possessed the power of deodorizing excretory matter, the admixture to produce "an inoffensive manure capable of being transported by any conveyance, and of being used with the drill." I met the challenge; and in your paper of Oct. 8, 1849, you obligingly stated that I had "fairly won the thanks and honor of my fellow men."

Permit me to say, I now challenge you. Your position gives you the power of having tested, in a manner perhaps beyond the reach of others, the real value of this combination as a manure. Neither you nor the world will, nor perhaps should, believe my *individual* statement, that *peat charcoal manure* is the most valuable that has yet been produced. Still I aver that it is, and I seek for proof to the contrary. I now place at your disposal twelve sacks (3 cwt. each,) of this manure.

The charcoal to produce this combination, has been manufactured under my direction for "the Irish Amelioration Society," the admixture made in London: six sacks contain equal parts in weight of excretory matter and charcoal, the remaining six, equal parts of peat, charcoal, and urine.

Pray place this in the hands of six different persons to test each kind against guano or any other manure they please.

First, I seek comparison for one season; next, that the test be extended to *three* or even *four* without renewal.

I feel assured you will select those of eminence in agriculture, who will take the trouble of making the test fairly, and who will fully report the results. —Jasper W. Rogers.

(We entirely concur in the view taken by Mr. Rogers in his letter, that the peat charcoal and nightsoil manure should be carefully and accurately tested by experienced and competent practical farmers. We accept his challenge, and have no doubt shall readily obtain the assistance of able, trustworthy parties, to test the merits of his proffered quantities of the manure.—*Ed. Mark Lane Express.*)

FATTENING STOCK.

Messrs. Editors:—Having often enjoyed the benefit of other men's experience, in the pages of your valuable paper, I will give, with your permission, some items of my own. What I have at present to offer, relates to the manner and result of fattening a small framed cow, eight years old, of my own raising, kept farrow last winter, and milked until the first of August. Then, being in fair condition, I placed her in good pasture until the 12th of September, at which time she was turned into a wheat-stubble and kept without water, and fed about one bushel of pumpkins cut in pieces morning and night, and during most of the time half that quantity at noon. I gave her no water because I thought her food contained sufficient moisture, and she would be the more inclined to eat. For this reason the pumpkins should be cut so fine as to be eaten without breaking them with the front teeth, which also prevents waste, and the teeth from becoming sore. I gave her salt freely — two or three times a week, but think it would have been better to have kept it always within her reach.

After thus feeding until the 10th December, (about three months,) she was slaughtered, and her whole weight was 815 lbs. The leaf and rough tallow, and a small portion from that part of the flank which always runs to tallow in *fat* cattle, with some slight trimmings from the drying pieces, (these two last not exceeding five or six pounds,) amounted to 200 lbs. She would have brought, at $3.50 per cwt. and 8 cts. per lb. for the tallow, $37.50 And valuing the cow at $16, which she would have brought, and the seven loads of pumpkins fed her at $7, with an allowance of $2 for pasturing, &c., I am left $12.25 for my labor. Jonathan Silsby.—*Royalton, N. Y.*, 1850.

How Much Pork will a Bushel of Corn Make? —By some experiments tried, it is believed that a bushel of corn, fed to a thrifty hog, will make12 lbs. of pork. So that corn at 24 cts. is equal to pork at 2 cts., and corn at 75 cts. a bushel is equal to pork at 6 cts. a pound. The manure will more than pay for the labor of feeding and killing the hogs.

A sound economy is a good understanding brought into action.

Horticultural Department.

EDITED BY P. BARRY.

How it comes that country people adhere so rigidly to the practice of building their dwellings close to the roadside, we can not very well understand. We do not mean to say that all do so; but the instances where a different course is adopted are so few and far between as to be mere exceptions. The man who builds on a city or village lot, is compelled by circumstances to build close to the street — his contracted plot of ground affords him little scope to gratify his taste, even if he has any; but the farmer who possesses his fifty or five hundred acres, is controlled by no such circumstances, and when he plants his house in the midst of the noise, dust, and intrusiveness of a public highway, we are forced to the conclusion that he does so from *choice!* We do not, of course, dispute any and every man's right to build his house in such a style and on such a site as he may think fit and proper. A man who builds a house for himself and family to live in, has the first and best right to be suited. Admitting all this to the fullest extent, we nevertheless think it may not be amiss to call attention to some points connected with the subject, that seem to be very generally overlooked.

Supposing Mr. A., whose city lot is 50 by 100 feet, builds his house within a few paces of, or even close up to the side-walk, for the sake of having room enough in the rear for his barn and other offices, and for a small garden; is that any reason why Mr. B. in the country, with a farm of one hundred acres, should build himself a house precisely similar, on the very roadside, leaving just space enough for a row of maples between his door and the highway? We could point to scores of instances where this very unwise thing has been done within ten miles of the city of Rochester, where some of the most delightful situations have been actually deformed and ruined by this copying of city plans. We do not deny that a man may build himself a very convenient house on the roadside—it may be very easy getting out and in, and he may avoid all cost of keeping grounds in order — he may eat and drink as well, wear as good clothing, grow rich as fast, and in all other ways gratify his animal nature as well in such a situation as any other; but surely there are other things to live for besides these. What is it that constitutes the real charms of a country life? Is it fine houses, fine furniture, fine horses and carriages, &c.? No. When we imagine a pleasant country home, we figure to ourselves a *plain and simple dwelling surrounded by trees, green turf, and flowers.* It is charming even to think of such a home as this. How many thousands have worn themselves out, and are at this moment toiling like galley slaves, in the harrassing pursuits of cities, that they may be able to procure such a home and close their lives quietly? How cold and forbidding is the finest house that human hands can rear in the country, without trees! and how inviting and how beautiful is the plainest cottage, with its trees and lawn! Who is there, with a spark of love for nature's beauties, that has not a thousand times made the contrast, in passing over the country? When a dwelling is built close to the highway, it is placed in a position where it is utterly impossible to give it a true rural aspect. There can be no lawn in front, no groups of trees, no beds of flowers — nothing that can make up a scene that the inmates can love to look out upon. The street, the public highway with its noise and dirt, against which blinds and curtains must continually be drawn tight, is the scene that presents itself, and one that no mortal man or woman, whatever may be their tastes, can admire. This is surely a hard destiny for people to fix upon themselves by choice. There are very many so situated from necessity, having come into the possession of places already laid out, and which it may not be convenient for them to alter. Our remarks do not apply to them, but to those who have entire control of all the circumstances connected with the location of their dwelling. We do not wish to be understood as recommending to farmers to erect their houses at any unreasonable or inconvenient distance from the main road, or that they shall lay out extensive pleasure grounds. We are very far from suggesting any such absurd or impracticable notions, or anything not in perfect accordance with the best farm economy, and quite within the reach of every farmer in the country. A house erected twenty rods from the street costs no more than it would within one rod.

What we would suggest is, that every farm house be built so far back from the highway that half an acre, or an acre, of ground may separate them; that this be kept in grass and interspersed with groups of trees and shrubs. There is hardly any section of the country, except the prairie, but trees enough of native growth can be found in to make a beautiful plantation. Our native *oaks, elms, lindens, tulip tree, maples, white pines, hemlocks, cedars, &c.*, are all beautiful trees. Those who object to the appropriation of so much ground to ornament, may turn it all to profitable account by planting fruit instead of ornamental trees; they may be grouped to equal advantage, and by cultivating around them, will produce as well as in an orchard. The grass plat, by being kept in good order, may produce good crops of hay, and thus every inch of the ornamental ground may be as productive and profitable as any part of the farm. Those who might wish to give a higher polish to their grounds, could introduce among their groups of trees, some exotic species, keep their lawn closely mowed and embellished with groups and figures of flowering shrubs, roses, &c.

Our object is not, at this time, to enter into any detail, but simply to suggest a principle that every man can adopt, with such modification as may suit his taste and circumstances. At a future time, we will return to this subject and offer some detailed plans in illustration of the suggestion now given.—The modern style of laying out grounds is simple, natural, and beautiful. It discards all such antiquated, puerile practices, as cutting up ground into squares, with hearts, triangles, hexagons, and other unmentionable figures in the centre. If grounds were to be so laid out and ornamented, plain farmers might well be deterred from attempting it. But such is not the case. Lawn and trees are the principal materials for a landscape, and with these, any man with a spark of taste, and a few simple suggestions, can make himself an interesting and beautiful home.

THE COBEA SCANDENS, OR CLIMBING COBEA.

One of the most rapid growing and at the same time very beautiful summer climbers, is the Cobea, a native of Mexico. It is cultivated as a green-house plant, and can either be raised from seeds or cuttings early in the spring, and turned out into the border in May or June. It may be trained over a wall by means of strings or wires, to which it clings by tendrils like those of the grape vine. The flowers are two inches long and three inches in diameter, bell shaped, and the prevailing color is a dark bluish purple; many are quite greenish when they first open. A young plant turned out of a six inch pot on the first of June here, covers at this time a wall twelve feet long and twelve feet in height, and since the last of July has been continually in blossom, and will continue to be until frost comes. Young plants are always to be had at a very low price in the spring.

Now is the time to select flower seed for next season. Mark the finest blossoms, so that when the seed is ripe you can readily select the best.

SUMMER PEARS.

Dr. Kirtland, in the Family Visitor of September 5th, gives some interesting "Notes on Fruits of the Season." He says:

> The Bloodgood, when at maturity this season, has proved to be a more valuable fruit with us, than in any former year. Still it was not equal to the Madeleine and ripens two weeks later.
>
> The Dearborn's Seedling maintains its high character for fine flavor, but it does not surpass the Zoar Beauty and is one-third less in size. The latter we must place in our list of number ones.
>
> The Belle of Brussels, in Mr. Elliot's grounds has, this season, equalled its highest recommendations. With us, it once attained to that standard, but in subsequent years proved so poor that we discarded it.
>
> The Rostiezer is ripening with us—but its small size will operate unfavorably to it, however valuable its other qualities may prove.
>
> The Tyson is decidedly the finest flavored pear we have tasted this season. In size, color, and form, it bears some resemblance to the Zoar Beauty—in flavor it excels—and we must place it among the number ones.

The best and most beautiful summer pear we have had, was the *Osband's Summer*, ripe the middle of August. The *Bloodgood* has produced a good crop, and in quality was really number one; but it is by no means an attractive looking fruit, like the *Osband's*. It ripened here from the 10th to the last of August. The *Dearborn's Seedling* is always fine, though small. The *Belle of Brussels* is occasionally fine, but so often insipid as to be, notwithstanding its beauty, size, and productiveness, unworthy of being classed with good fruits. A warm soil, season, and exposure, must all be combined to make it good. The *Summer Francreal* is a prodigious bearer. The tree is robust and a beautiful grower. When picked in season and ripened in the house, it is really good — not so buttery as the *Bloodgood*, but vinous and refreshing. We gathered our crop this season on the 20th of August, and they ripened in the house for a fortnight.

RHUBARB, GOOSEBERRIES, &c.

Mr. Editor:—My father, in August, 1848, imported a few rhubarb roots. This year the stalks, from the base to the lower part of the leaf, measured 3 feet 7 inches in length. He has some plants which he raised from seed sown in April, 1849, and transplanted in April, 1850, which are now 2 feet long in stalk and upwards of 6 inches in circumference. He had gooseberries this year measuring 3⅝ by 4¼ inches in circumference. Several of our neighbors have them quite as large. Mr. Barker, Mr. Vary, and others, have them very fine. One from the garden of Mrs. Strachan measured 3¾ by 4 inches. They are very thin skinned and fine flavored.

If you have anything in Rochester that beats the above, please let us know in your next number.

Plums are almost a failure. Peaches will be very scarce. Quince trees all blighted early in the season. If you can give any preventive for mildew on grapes, you will oblige. I have tried sulphur this year without any effect. Alex. Swinton.—*Niagara, C. W., Aug.*, 1850.

We can not recommend any certain preventive of mildew in grapes. We have heard of ashes being successfully applied as a top dressing around the roots in fall or spring.

We have seen nothing here to surpass your gooseberries.

PEACHES.

There has been a great cry of cheap peaches in the eastern markets; but we have it from the best authority, that really fine peaches have been selling, even when the supply was at high water, for $2 to $3 per basket in New York. The trash that has been sent into the interior for sale, never ought to have been picked up, being the produce of unhealthy trees, prematurely ripened, and every way inferior. Notwithstanding the quantities brought in here and offered at 75 cts. to $1 per basket, our growers have found no difficulty in obtaining $2 to $3 per basket for *Crawford's Early* and other good kinds. Our friends here who visited the State Fair at Albany, informed us that they did not find a good eatable specimen in the best hotels at Albany, or for sale in the streets. The crop here, although a comparative failure, has been much better than we anticipated. *Crawford's Early* in most cases has borne a full crop. We visited a large orchard on the 14th inst., and found every tree of this variety loaded, while no other variety had the tenth part of an ordinary crop. We are perfectly satisfied that this is one of the most profitable varieties for our climate. The *Early York* has also borne pretty well.

TRANSPLANTING.

The transplanting season commences here usually about the 10th of October, or from that to the 15th. We have no hesitation in recommending fall planting for all hardy deciduous trees and shrubs. The ground should be dry and well prepared, and a few inches of manure or litter be placed around every tree or shrub before winter sets in. Bulbous flower roots, such as tulips, hyacinths, lilies, &c., &c., should be planted early in the month, and the beds covered with two or three inches of rough manure, that may be raked off in spring as soon as the ground thaws — leaves or straw will answer. Hardy herbaceous perennial plants should all be planted early in the fall, to ensure a good bloom next season. For details concerning pruning and planting, we must refer to back numbers of the Farmer.

Horticultural Show at the State Fair.— Sickness prevented us from attending this exhibition, but all who were present, that we have conversed with, concur in pronouncing the display of fruits and flowers quite inferior to what was expected, and hardly equal to that of previous years. The earliness of the season alone is sufficient to account for this. Summer fruits were gone, and autumn and winter fruits not mature enough to make any attractive display. It will be seen by the notice of the agricultural editor, who was present, that the only noticeable contributions were *Foreign Grapes*, and *Floral Ornaments*, both of which were unusually fine. The Horticultural part of the State Fair can never amount to anything, if held any time before the middle of September. We might add that the greatest display of fruits was from Rochester.

The Ohio State Fair and Pomological Congress will be held at Cincinnati, on the the 1st, 2d and 3d of October. The original time designated, was the 11th, 12th and 13th of September, but a postponement was deemed necessary on account of the existence of cholera in the West.

ANSWERS TO CORRESPONDENTS.

The conductor of the Horticultural department will cheerfully answer the questions of correspondents, as far as he is able, through the Farmer, but cannot spare time to answer by mail, except in particular cases.

Plums.—(Judge Pomeroy, Plymouth, Ind.) The specimen sent came quite safely to hand. It is identical with a variety we cultivate as "Large Black Imperial." We procured it from Kenrick ten years ago. The same variety is also known as the *Bradshaw*, about Boston. It is a superb and excellent variety.

Pear Trees.—(A subscriber.) By referring to the back numbers of the Farmer, you will find more satisfactory answers to your enquiries than we can give at present. An orchard of pear trees on quince stocks (varieties that succeed well,) will no doubt be profitable. They will pay for themselves, and the ground too, before standards begin to bear. A very good way is to plant standards, say twenty feet apart, and a dwarf between.

Apples.—(P. Fredric Bill, Seneca.) No. 2, as near as we can judge from a single specimen, is *Pomme Royal* or *Dyer*; No. 4, probably *William's Favorite*; No. 5, *Fall Pippin*; Nos. 1 and 3, we don't know. **Pears.** — No. 1, *Bartlett*; No. 2, *White Doyenne*; Nos. 3 and 4, *Summer Bonchretien*; No. 5, *Gansel's Bergamot.*

(S. Stroger, Penfield.) *Stroger's Favorite*—seedling raised by S. Stroger, of Penfield. A very pretty fruit, but quite inferior to the *American Summer Pearmain* or *Pomme Royal*, of the same season.

(W. Andrews, Webster.) The branch of a tree left at our office, is of the *Large Spined Gleditschia*, a variety of the Honey Locust.

We are indebted to our friend W. R. Prince, Esq., of Flushing, now in California, for a Sacramento paper containing an interesting account of a visit made by him, in company with other gentlemen, to the residence of the celebrated Capt. Sutter. The Botanical and Horticultural part of the notes is much less interesting than we should have expected, and convey rather an unfavorable idea of either the natural or cultivated vegetable productions of that portion of this golden land. We hope soon to hear of our friend Prince's return with gold enough, and rare trees and plants, to create a sensation in the horticultural world.

We call attention, of all who are interested, to the auction sale of the entire nursery stock of Messrs. Elliot & Co., of Cleveland, Ohio. It was postponed on account of the postponement of the assemblage at Cincinnati.

Dahlias. — As soon as the frost has completely killed the tops, the roots may be taken up, thoroughly dried in the sun and air, labelled; and put away on shelves in a dry cellar or room where they will not freeze.

Mr. Barry :—*Dear Sir*—You will find *Spiræa Ulmifolia* classed as a hardy *herbaceous* plant in Paxton's Botanical Dictionary, compiled by Joseph Paxton and Dr. Lindley, and their associates — a work of known accuracy — dated June, 1840. C. J. Ryan.

The above should have appeared in our last number, but was accidentally mislaid.

THE SEASON, FRUIT CROP, BLIGHT, &c., IN THE ERIE DISTRICT OF PENNSYLVANIA.

OUR correspondent, A. HUIDEKOPER, Esq., of Meadville, Pa., in a business letter dated Sept. 9th, gives us the following information, which we take the liberty of extracting:

"Our summer has been a very beautiful one, and vegetation has been stimulated to its utmost capacity of growth by the warm weather and frequent showers. Crops of all kinds have been very good, except the hay crop, which was but moderate, and the potato crop, which, since August, has suffered badly with the blight.

Apples are very abundant, and a few Yellow and Red Rareripe peaches have found their way to market. Our farmers have not yet paid sufficient attention to having an abundance of the better varieties. A few illustrations of what can be done, however, will soon stimulate others to follow the example.—I have had a fine crop of Dearborne and Bloodgood pears this year, and have also some of the Winter Nelis, which are now maturing.

The insect blight has touched a good many apple trees this year, but my pear trees have been entirely exempt. I cannot help believing that much of the blight is owing to vitiated sap from the winter frosts. A due attention to trees will frequently disclose incipient blight in the spring, which only becomes fully apparent during the heat of summer. I do not think the blighting of new wood, of the season's growth, any objection to this cause, for we frequently find new shoots made from the limbs, the bark of which is either dead or entirely diseased. The death of the shoot, or final development of the disease in that part of the tree, seems to be owing to some change in the direction of the sap, or some law in the organization of the plant which requires a supply of healthy sap, which the diseased limb cannot furnish.

The fruit convention in Cincinnati, I see has been postponed until the 1st October. This will be too late for peaches, but will afford a better opportunity for pears and winter apples, which are perhaps of more consequence. Peaches we have now as fine as any body need wish to eat; but the better kinds of apples and pears should be more extensively known, and many kinds now cultivated, rejected; great allowance, however, will always have to be made for that great fact which cannot be altered, viz., a variety of tastes."

CARRYING FRUITS TO MARKET.

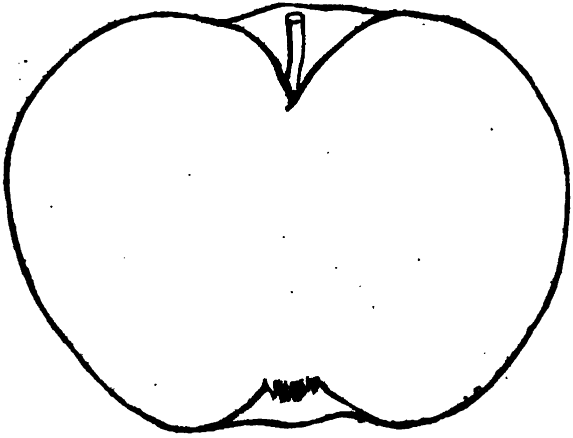
NOT a day passes during this season of the year, but we witness the effects of carelessness in carrying fruits to market. A farmer has early apples for sale—he shakes them from the trees, throws them into the box of a lumber wagon, places his half bushel measure and a dozen other things on the top of them, and drives off at a good round trot eight, ten, or perhaps twenty miles, over a rough road, to the market town. When he arrives there, his apples are all bruised and blackened—entirely unfit for human use. He tries to sell them—he passes up and down the streets—calls at all the groceries, and after spending most of a day, succeeds in bargaining them off for a mere nominal price, say a shilling or two a bushel. Another farmer has the same sort of fruit—he picks them carefully, puts them in baskets or barrels, and drives them carefully to market. If he succeeds in reaching the centre of the town before he sells, he is instantly surrounded by a multitude of eager purchasers, who will not hesitate at giving him fifty cents or more a bushel, and feel well pleased with their bargain. This man has had some satisfaction as well as profit in disposing of his fruit, and he goes home well pleased with his orchard and determined to take good care of his trees; while the former goes home grumbling at every body, declaring that "fruit aint worth growing—they wont pay for carrying to market," &c., and determined to give himself very little concern in future about his trees.

In all branches of trade, the articles that are presented in the best condition in market will command the quickest sale and best prices. If an animal is driven to market, starved, goaded, abused and worn out with fatigue by the way, it will not sell for half its value. Hay that is cut at the proper time, well saved, and sweet, will sell for twice as much as the same hay would improperly cured. We have seen a salesman in a dry goods store, that had the faculty of showing articles to such advantage that he could sell more than half a dozen others, and at better prices. An old friend of ours, who always gets the highest price for his fruit, told us that he was once in the wine trade, and by simply sealing up bottles tastefully with wax, he had been able to double their price. So it is in everything, and above all things such a perishable commodity as ripe fruit.

ENGLISH AND AMERICAN LANDSCAPES.

MR. DOWNING, in his letters from England, makes the following remarks on the difference between English and American landscapes:

> The chief difference, after all, between an English rural landscape and one in the older and better cultivated parts of of the United States, is almost wholly in the universality of verdant hedges, and the total absence of all other fences. The hedges (for the most part of hawthorn) divide all the farm-fields, and line all the roadsides—and even the borders of the railways, in all parts of the country. I was quite satisfied with the truth of this conjecture, when I came, accidentally, in my drive yesterday, upon a little spot of a few rods—where the hedges had been destroyed, and a temporary post and rail fence, like those at home, put in their place. The whole thing was lowered at once to the harshness and rickety aspect of a farm at home. The majority of the farm hedges are only trimmed once a year—in winter—and therefore have, perhaps, a more natural and picturesque look than the more carefully trimmed hedges of the gardens. Hence, for a farm hedge, a plant should be chosen that will grow thick of itself, with only this single annual clipping, and which will adapt itself to all soils. I am therefore confirmed in my belief, that the buckthorn is the farmer's hedge plant for America, and I am also satisfied that it will make a better and far more durable hedge than the hawthorn does, even here.
>
> Though England is beautifully wooded, yet the great preponderance of the English elm—a tree wanting in grace, and only grand when very old, renders an English roadside landscape in this respect, one of less sylvan beauty than our finest scenery of like character at home. The American elm, with its fine drooping branches, is rarely or never seen here, and there is none of that *variety* of foliage which we have in the United States. For this reason (leaving out of sight rail fences,) I do not think even the drives through Warwickshire so full of rural beauty as those in the valley of the Connecticut—which they most resemble. In June our meadows there are as verdant, and our trees incomparably more varied and beautiful. On the other hand, you must remember that here, wealth and long civilization have so refined and perfected the details, that in this respect there is no comparison—nothing in short to be done but to admire and enjoy. For instance, for a circuit of eight or ten miles or more here, between Leamington and Warwick and Stratfort-on-Avon, the roads, which are admirable, are regularly sprinkled every dry day in summer, while along the railroads the sides are cultivated with grass, or farm crops, or flowers, almost to the very rails.



THE ROUGH AND READY APPLE

Chas. P. Cowles, of Syracuse, sent us specimens of this apple in 1848, with which we were much pleased. He has also sent us a box this season, which confirms our opinion of its being a very beautiful and excellent fruit. In appearance and quality it more nearly resembles the *Summer Rose* than any other variety — smooth skinned, clear colored, fine grained, and pleasant flavored. Mr. Cowles thinks it is a seedling, as he has sent it to various parts of the country, and has not been able to identify it with any known variety. We do not approve of the name given it. Names of fruits should, if possible, convey some idea of quality, appearance, or place of origin. Such hackneyed terms as "Rough and Ready" seem quite inappropriate; but we have nothing to do with this. Mr. C. describes it as follows: "Fruit above medium size, large, oblong, broadest at the base, gradually narrowing to the eye, distinctly ribbed. Color green; when fully ripe, of a beautiful straw color, tinged with bright blush on the sunny side. Flesh tender and excellent, fine grained, somewhat melting, like a pear, of yellowish color, abundant in juice of an agreeable sub-acid flavor. Stalk large and stout, inclining to one side, from an inch to an inch and a half in length, deeply inserted in an irregular cavity. Eye small and closed, segments reflexed, distinctly plaited. An abundant bearer, with the remarkable character of ripening a long time, as wanted. It commences to ripen the first of August and lasts into September. Tree of vigorous growth, making a fine head. Wood of light brown color, resembling the *Porter;* of stocky growth in the nursery, like the *Gravenstein*. Leaves glabrous above, downy beneath. Owing to its great productiveness, it makes but little annual growth. The ends of all the twigs are very stout and blunt, of nearly the same size at the end as at the joint.

"I propose to call it '*Rough and Ready*,' from the fact of its being first tested during that campaign and as the name is a familiar one through the country. I have sent specimens to numerous friends, with grafts to test its qualities in different localities, with this name."

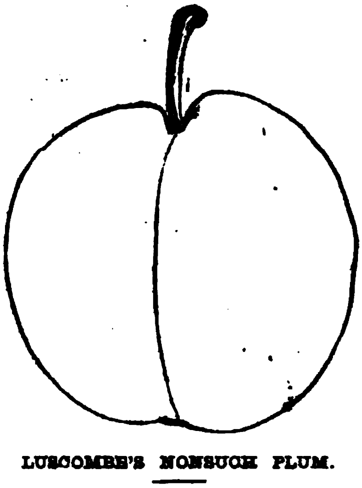
Who ever anticipated boorish rudeness, or met with incivility, among the enthusiastic votaries of Flora? Was it ever known that a rural residence, tastefully planned and appropriately adorned with rural beauties, was not the abode of refinement and intelligence.

A NEW PEAR.

Mr. Editor:— Permit me, through the pages of your paper, to bring to the notice of pomologists and all lovers of good fruit, a new seedling pear of very high promise.

In the spring of 1843, Dr. John Pulsifer, of Hennepin, planted in his garden a pear seed, (kind unknown,) which sprung up, grew, and the present season bore a crop of fruit of great merit in different respects. Growth of tree upright and vigorous. Shoots dark olive. Buds round, full, and prominent. Leaves dark green, ovate, reflexed. Size of fruit, hardly medium. Shape pyriform. Stem short and curved. Calyx small, open, set in a shallow depression. Skin dull golden yellow, covered with an open network of slight russet. Flesh white, melting, juicy, sweet, and delicious — much like, but superior to, the *Louise Bonne de Jersey*. The time of ripening, the present backward season, was the first half of August.

That its merits may be fully tested in different circumstances, grafts will be sent the coming season to pomologists in different parts of the Union; so that when generally approved, it may take its rank and place under the title of the "*Pulsifer Pear*." S. S.—*Hennepin, Ill., Aug.*, 1850.



LUSCOMBE'S NONSUCH PLUM.

This is an English variety, raised by Luscombe, Prince, & Co., nurserymen of Exeter, England.— We had it bear here for three years past, and consider it a valuable excellent variety. It is large — five to six inches in circumference — round, with a deep suture on one side. Stalk about half an inch long, inserted in a small cavity. Color, greenish yellow; and when ripe, melting, juicy, and rich. Adheres to the stone. Branches smooth, moderately vigorous. A regular and good bearer. This season they began to ripen on the 1st of September, and some that we ripened in the house are in fine condition now, (Sept. 16th.) In ordinary seasons it ripens here the latter end of August. It was pronounced "*nearly first rate*" at the Syracuse Pomological Convention last season. Mr. Saul, of Newburgh, who seemed better acquainted with it than any one else, considered it first rate in quality, but not so profuse a bearer as some others.

Editor's Table.

Two numbers more will complete the present volume of the Farmer. Those who have read our monthly visitor with pleasure and profit—those who have expressed their indebtedness to us for valuable information—for improved crops and profits—have now an opportunity to pay that debt, by a little exertion among their neighbors to increase our circulation in their respective localities. It is on the efforts of our friends we depend for increased circulation and usefulness. We have no paid agents, and intend to have none. There are some towns in which we have three or four hundred subscribers, obtained and forwarded by one or two individuals in each place; there are other towns where we should have as many, yet, because no person took the responsibility of urging the matter upon the attention furmers, we have few or none. We ask all who feel an interest in the Genesee Farmer, and are willing to aid in its circulation, to appoint themselves agents, show the paper to their neighbors, and obtain and forward subscriptions for the next volume. Any persons losing or damaging numbers in this way we will willingly supply with others. We can furnish all the numbers of the present volume to those who may wish them.

Large Yield of Wheat.—We have noticed somewhat of a discussion between the Macombe (Mich.) Gazette, and the Rochester Democrat, in regard to a large yield of wheat—the former stating that Ira Philips, of Armada, Michigan, raised *one hundred and twenty-four bushels on two acres*; and the latter thinking it too large a story to believe. Perhaps we can lessen the improbability of this yield of wheat, by telling a story of our own. Romanta Hart, of Brighton, in this county, says that a field of twelve acres which he harvested this fall, averaged 50 bushels to the acre. On three acres, and what he considered the poorest piece of the field, the yield, carefully and accurately measured, was over *sixty* bushels to the acre. This three acres being the lightest and poorest of the field, Mr. H. liberally manured it with lime and ashes, and the consequence was, it proved the best. Previous to sowing the wheat, a fine growth of clover was turned under. Mr. Hart intends to try for the State premium. We shall endeavor to obtain a full statement of culture of this crop for the next number.

While at Albany, at the State Fair, we had the pleasure of visiting the Agricultural Works of Wheeler, Melick, & Co., where are made Wheeler's Railroad Horse Powers and Threshers. Mr, W. informed us that he regularly employs about eighty men in making his machine, and that he is hardly able to fill orders as fast as they are received. Mr. Wheeler passed through this city on his way to the Provincial Fair, with a very superior machine. We can recommend these Thrashing Machines to the favorable notice of our Canadian readers.

The space occupied by matters connected with the State Fair compels us to omit many things which should have received attention in this number.

Be particular in saving good seed. If you have anything growing on your farm particularly fine, save the seed, and plant it next year. You will soon see the benefit of this course.

CIRCULAR FROM THE PATENT OFFICE.

We have received a Circular from the Commissioner of Patents, soliciting information on the following, and any other points connected with agriculture. Farmers would be doing a public service by furnishing the desired information.

Wheat.—Varieties in use—average product per acre—time of seeding and of harvesting—preparation of seed, and quantity used per acre—how many times and how deep do you plow—is the yeild per acre increasing or diminishing—your system of rotation in crops—best remedies for Hessian flies and weevils—average price at your nearest market in 1850.

Corn.—The most esteemed varieties—average product per acre—cost of production per bushel—state the best system of culture—best method of feeding, whether whole or ground, cooked or raw; state, if you can, how much grain the manure formed by ten or twenty bushels of corn consumed by hogs will add to an acre, if carefully saved and skilfully applied, at or before the time of planting.

Oats, Barley, Rye, Peas and Beans.—Average yield of these several crops per acre—quantity of seed used—which crop least exhausting to land—are peas cultivated as a renovating crop, and if so, with what succes?

Clover and Grasses.—Quantity of hay cut per acre—best fertilizers for meadows and pastures—the grass seeds preferred in laying down meadows—quantity sown per acre—cost of growing hay per ton.

Dairy Husbandry.—Average yearly produce of butter or cheese per cow—comparative cost per lb. of making butter and cheese—treatment of milk and cream—mode of churning—of putting down butter for market—average price of butter and of cheese.

Neat Cattle.—Cost of rearing till 3 years old—usual price at that age—value of good dairy cows in spring and in fall—how many pounds of beef will 100 lbs. of corn produce—will a given amount of food yield more meat in a Durham, Devon, or Hereford, than in a native animal?

Sheep and Wool.—Is wool-growing profitable—cost per lb. of growing coarse or fine wool—how many pounds of wool will a ton of hay produce—are large or small sheep more profitable either for mutton or for their fleeces—how much more does it cost to produce a pound of fine Merino than of ordinary coarse wool—the proportion of lambs annually reared to the number of ewes.

Hogs.—What the best breeds—the cheapest method of producing pork and bacon—how many lbs. of meat will 100 lbs. of corn yield—the best method of putting up pork, and curing bacon and hams.

Cotton.—Average yeild of clean cotton per acre—cost of production per lb.—what crops best grown in rotation with cotton—best preventives against rust, army and boll worms—how deep do you usually plow for this crop; have you any experience in subsoiling or deep tillage for cotton—your experience in the use of cotton seed as a fertilizer—how can cotton lands best be improved without resting them.

Sugar Cane.—Is the cane losing its vital force and becoming more subject to premature decay than formerly—should not the seeds in place of ratoons be occasionally planted to produce new and healthier varieties—can you suggest any improvement in cultivation of the cane, or the manufacture of sugar—cost of producing sugar per lb.

Rice.—Can rice be successfully cultivated on upland—do you know of any varieties decidedly superior to others which deserve increased attention—can you suggest any improvement in the management of rice plantations?

Tobacco.—Average yield per acre—cost of production per cwt. or hhd.—describe any new process of cultivation or curing—crops best grown in rotation to maintain the fertility of tobacco land.

Hemp.—Is the culture of hemp on the increase or decrease—describe any new process of culture or preparation for market—average yield per acre—cost of production per lb.

Root Crops, (*Turnips, Carrots, Beets, &c.*)—Is the cultivation of these roots, as a field crop, on the increase—can you suggest any improvement in preparing land, seeding, after tillage and feeding—average product per acre.

Potatoes, (*Irish and sweet.*)—Average yield per acre—cost of production per bushel—most prolific and profitable varieties—best system of planting, tillage, and manuring.

Fruit Culture.—Is the culture of fruit receiving increased attention—cannot apples enough be grown on an acre to render the crop a very profitable one to the farmer—comparative value of apples and potatoes for feeding hogs and cattle—what varieties best to keep for winter use and for exportation—do you know any preventive or remedy for the "blight" on pear and apple trees, "yellows" on peach trees—the best method of transplanting, budding, grafting, &c.—Make any suggestions on the culture of *Grapes*, and other fruit—the manufacture of *Wine*, &c.

Manure.—What is regarded as the best plan of making and preserving manures from waste—are *Lime* and *Plaster* used as fertilizers—if so, in what quantity, and how often applied—is *Guano* used, and with what success—quantity usually applied per acre.

Meteorology.—Time and degree of highest and lowest range of thermometer—mean temperature of each month and of the year—fall of rain in each month, and aggregate for the year.

Note.—Please forward replies as early as convenient—if possible, before the 1st of January—giving the name, post office, county and State. A copy of the Report will, when printed, be mailed to each address.

All communications will be duly acknowledged in the Report.

GREAT SALE OF FRUIT AT AUCTION.

THE WHOLE STOCK OF A NURSERY TO BE SOLD AT AUCTION, OCTOBER 9th, 1850.

THE Proprietors of the Lake Erie Nursery, Cleveland, Ohio, being about to make a change in their business, will sell their entire stock of Fruit and Ornamental Trees, Shrubs, Roses, &c. &c., at Public Auction, and without reserve, on Wednesday, the 9th October next.

The collection embraces all the choice leading, and new varieties of Fruits; rare Ornamental Trees, Shrubs, &c, and in extent of variety and correctness to name, is probably surpassed by no Nursery at the West.

The stock of Pears on free stocks, and dwarfed on Quince, is very good, and also Cherries, Apples, Peaches, Plums, Grapes Quinces, Currants, Raspberries, &c. &c.

Among the Ornamental Trees and Shrubs, there are plants from one year's growth to an extra size, and the stocks of Mountain Ash, Scotch Larch, Deciduous Cypress, Norway and Silver Maples, European Lindens, Horse Chestnuts, Kentucky Coffee Trees, Garland Dentzin, Daphne Megereon, Monthly Chinese Evergreens, and Tree Honeysuckles, &c. &c., are especially good.

The stock of Evergreens is large, and most of them having been twice transplanted, they are in excellent condition to be removed.

The sale will be made in lots of 10 to 100 trees or plants in each lot. The correctness of varieties may be relied upon, and purchasers can have the privilege of removing their trees at any time previous to the 20th May, 1851.

The purchaser can dig and remove his trees himself, or the proprietors will do it for him, charging him the usual price of packing, &c.

The terms of sale, unless otherwise agreed upon with individuals, will be as follows:

For all sums under Twenty Dollars, cash.

Over Twenty and under Fifty, 30 days.

Over Fifty and under One Hundred, 4 months.

Over One Hundred, six months, approved Notes payable at Bank.

Catalogues will be issued about the 15th of August, which we shall take pleasure in forwarding to any persons who may desire. All communications of inquiry, &c., addressed to the subscribers, will meet prompt attention.

ELLIOTT & CO.,
Sept, 1850. Lake Erie Nursery, Cleveland, O.

LINNÆAN BOTANIC GARDEN & NURSERIES.

WM. R. PRINCE & CO., FLUSHING, L. I.

WM. R. PRINCE & CO., sole proprietors of this ancient establishment, would respectfully invite the attention of Amateurs, Nurserymen, and others, to their fine and extensive collection of *Fruit and Ornamental Trees, Plants, Shrubs, Roses, and Green House Plants, &c. &c.*, which are offered for sale on terms much below former prices. Their Fruit being propagated from bearing trees on their extensive specimen grounds, enables them to guarantee the varieties to be genuine and true to name. Their trees are well formed and thrifty, and such as will give complete satisfaction. To Nurserymen wishing trees in quantity, by the hundred or thousand, they are enabled to offer very liberal discount. Their extensive collection of Standard and Dwarf Pears, their new varieties of Italian and French Peaches, and many new and superior fruits of other kinds, are well worthy the attention of all lovers of fine fruit. Their collection of Roses is the most extensive of any Nursery in the country, and many new varieties have been added to their collection.

Orders for Trees from any part of the country will meet with prompt attention, and goods be packed so as to insure their safety to any distance.

Catalogues with a detailed list of prices, will be sent to all *post-paid* applicants, or can be had of our city Agents, Clark, Austin & Smith, 205 Broadway, New York.

N. B. The public will please not confound this with the Nursery of Winter & Co, who have taken the title of this establishment, but who are selling out and closing their business.

October, 1850. [10-1t*]

A NEW HARDY CLIMBER.

THE NEW AND BEAUTIFUL CLIMBER, Calestigia pubescens, recently introduced from China by Mr. Fortune, proves perfectly hardy in New England, having stood in the grounds here the past winter without the least protection. Trained to a single pillar, say 10 feet in height, it is a very striking and beautiful object, from the middle of June till cold weather, during which time it is covered with a profusion of its large double flowers, of a delicate rose color. It is very ornamental planted in patches like verbenas; makes an admirable screen, and is very effective in young plantations, belts or shrubberies, trailing prettily on the surface, and running up among the lower branches of trees in a very picturesque manner. It is, therefore, particularly suited for ornamenting Cemeteries and Public Gardens. Its culture is very simple, and it thrives in any good garden soil. When required in considerable quantities, it is best to start them under glass in February or March, but the tubers may also be planted in the open ground in May. The subscriber will send to order by mail or express, October 20th, tubers sufficient for 100 plants at $5.00, for 50 plants $3.00, with directions for propagation and culture.

Strong plants in pots in April, $1.00 per pair.

B. M. WATSON.
Old Colony Nurseries, Plymouth, Mass., Oct., 1850.

To Fruit Growers and Nurserymen.

ELLWANGER AND BARRY solicit the attention of all tree planters, Nurserymen and Dealers to their present stock, which is much larger and better than they have ever before had the pleasure of offering.

It embraces, among other things, in large quantities,

Standard Fruit Trees, of all sorts.

Dwarf and Pyramidal Fruit Trees, for Gardens.

Gooseberries, Strawberries, Raspberries, Currants, &c., all the newest and best kinds.

Ornamental Trees, Shrubs, Roses, &c., including all new, rare and desirable articles.

Buckthorn, Osage Orange and other Hedge Plants.

Stocks of all sorts for Nurseries.

Green House, Border and Bedding Plants.

Double Dahlias, &c., in immense quantities.

Wholesale prices furnished when desired.

A new edition of the general descriptive Catalogue is now ready and will be sent gratis to those who apply post paid.

Mount Hope Garden and Nurseries,
Rochester, N. Y., Sept. 1, 1850.

Fruit and Ornamental Trees,

At the Nursery of J. J. THOMAS, *Macedon, N. Y.*

MOST of the Trees are of large, handsome, and thrifty growth, and they embrace careful selections of the best sorts of Apples, Peaches, Pears, Cherries, Apricots, &c., with the smaller fruits.

When purchasers desire, selections will be made by the proprietor, so as to afford a regular succession of the best varieties throughout the season, and all may be relied on as strictly true to their names, the proprietor having for the past fifteen years invariably adhered to the rule of selling none but THOROUGHLY PROVED sorts.

A carefully assorted collection of hardy Ornamental Trees, Shrubs, and Herbaceous Perennial Plants, furnished at moderate prices.

Trees for canal and railroad well packed in bundles, enclosed in strong mats, with roots mudded and encased in wet moss, so as to preclude all danger of injury.

All communications, *post-paid*, to be directed Macedon, Wayne Co., N. Y.

October, 1850. [10-1t]

Apple Trees for Orchards.

MANY thousand fine Trees, mostly 7 to 8 feet high, *propagated in all cases from thoroughly proved or bearing trees*, for sale at the Nursery of J. J. THOMAS, Macedon, Wayne Co., N. Y.

They embrace the best standard varieties, with nearly all the valuable new sorts; among them are Early Harvest, Sine Qua Non, Sweet Bough, Early Joe, Summer Sweet Paradise, Autumn Strawberry, Gravenstein, Dutch Mignonne, Rambo, Fall Pippin, Yellow Bellflower, Rhode Island Greening, Esopus Spitzenburgh, Northern Spy, Swaar, &c, &c.

Price, varying with selections, from $16 to $18 per hundred. A first rate selection of summer, autumn, and winter fruit, of fifteen to thirty varieties, if made by the proprietor, furnished at $16 per hundred, or $17 if well packed in matted bundles, and delivered at canal or railway. All orders to be accompanied with remittances.

October, 1850. [10-1t]

Fruit Trees.—Genesee County Nursery.

THOSE wishing to supply themselves with Fruit Trees, may find at the above Nursery a choice variety, of large size and thrifty growth. He has over twenty varieties of cherries, among which may be found May Biggareau, Knight's Early Black, Early Purple, Yellow Spanish, Black Tartarian, Black Eagle, &c. He has a well selected variety of Pears,—twenty varieties were selected by Col Wilder, of Boston—among which may be found Madeleine, Bloodgood, Bartlett, Virgalieu, Onondaga Seedling, Dunmore, Passe Colmar, Vicar of Winkfield, Winter Nelis, &c. Also, a large quantity of Apple and Peach trees, of [illegible] selected varieties; as well as grapes, strawberries, &c. He [illegible] sell trees at reduced prices and pack them free of charge.

Orders must be addresse[illegible] the subscriber at Stafford, Genesee Co, N. Y.,

A. H. NORRIS.

October, 1850. [10-1t*]

T. C. MAXWELL & CO.,

GENEVA, N. Y.,

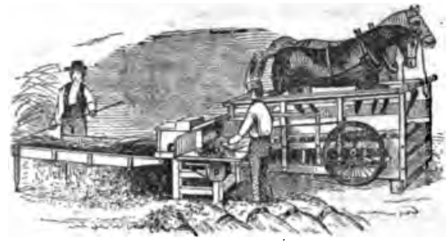
Offer for sale, this fall,

100,000	Buckthorn	seedlings,	2	y'rs old,	and nice,	at $5 per 1000.
80,000	Cherry	"	1 & 2	"	"	at 7 "
40,000	Apple	"	2	"	"	at 5 "
20,000	Plum	"	2	"	"	at 10 "

Also, a choice assortment of Fruit and Ornamental Trees, at wholesale or retail. Planters and dealers are invited to call and see. A liberal commission will be given to good agents in new locations. All orders will be promptly attended to, and trees packed safely for transportation to any distance.

Geneva, Sept. 1, 1850. T. C. MAXWELL & CO.

Back Volumes of the Farmer we can furnish bound. Also, all works on Agriculture and Horticulture, Poultry, Sheep, &c.



The First Premium of the New York State Agricultural Society was awarded to

EMERY & CO.'S IMPROVED RAILROAD HORSE POWER.

THE subscribers are gratified to be enabled to present the public with the best possible testimonial of the superiority of their *Recently Improved Railroad Horse Power*, in the form of the *First Premium* of the N. Y. State Agricultural Society, at their annual Fair, held near Albany on the 3d, 4th, 5th, and 6th of September, 1850, where they were exhibited each day in operation, in competition with Wheeler's Latest Improved, (still made and sold by us,) Allen & Co.'s Improved, made in New York by A. B. Allen & Co., Ham's Approved Powers, from Rensselaer co., Badger's Patent, from Otsego co., and other approved Powers on the Endless Chain principle.

They were all thoroughly examined by a competent Committee of practical Farmers and Mechanics. unbiased by former awards of the Socity to some of the kinds on exhibition, they unanimously awarded the Society's *First Premium, of Money and Diploma, to Emery & Co.*, for *superiority of mechanical construction, strength, durability and power*.

Having been long engaged in the manufacture and sale of Agricultural Machinery and implements, we are pleased to know our exertions to introduce improved Implements of husbandry are being appreciated by the agricultural public, the best testimonial of which we find in the rapidly increasing and unprecedented demand for every article of our manufacture and trade. In no article have we met with greater success than our Farmers' Threshing machinery, improved, manufactured and introduced by us; and notwithstanding the strong and growing competion of other manufacturers, we have thus far fully sustained the superior character of our machinery. Whenever alterations or improvements are suggested, we invariably test, thoroughly, their utility before offering them to the public, and no new article or alteration introduced by us has thus far failed to give increased satisfaction.

The attention of Farmers and Dealers in Agricultural Implements is respectfully requested to our Powers, before purchasing elsewhere.

Descriptive Catalogues, containing minute delineations, descriptions, terms, prices, &c., &c., of Horse Powers, also all the leading articles in our trade, are furnished gratis on application by mail or otherwise.

Efficient local agents in each county are wanted, to introduce and sell our Implements, to whom liberal commissions will be allowed, varying according to location, exertions made, and amount of sales.

For further particulars apply to EMERY & CO.,
Proprietors of the Albany Agricultural Works, Warehouse and Seed Store, Nos. 369 and 371, Broadway, Albany, N. Y.
October, 1850.

Pure White Lead.

THE Rochester White Lead Manufacturing Company beg to offer their brands of PURE LEAD to the attention of agriculturists and horticulturists, for painting permanent structures of every description.

This article has been thoroughly tested by the best judges in this city, and pronounced a genuine article. Persons desiring to test the purity of the lead, may have it analyzed by a chemist; and if in any case it should be found impure, we will pay the price of analyzing it, and refund the money for the lead.

Be particular about the brand: "Moulson's, 36 Front street, Rochester," is marked on every keg. Purchasers of lead have occasionally been deceived in buying lead branded as Rochester lead. Mark, *we are the only manufacturers of lead here*. There is, however, a large quantity of lead "fixed over" here. Nevertheless, we wish our lead not to be confounded with that or any other, and therefore desire all consumers to give us a trial.

SAMUEL MOULSON, No. 36 Front st.
Rochester, August 1, 1850. [8-tf]

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850. [6-tf]

BOOKS ON AGRICULTURE, &c., &c.,

For Sale at the Office of the Farmer.

The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed:—

American Agriculture, by Allen $1.
American Farm Book. $1.
American Poultry Yard, by Browne. $1.
American Shepherd, by Morrell. $1.
American Veterinarian, by Cole. 50 cents
Buel's Farmer's Companion. 75 cents
Buist's Kitchen Gardener. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Coleman's Continental Agriculture. $1.
Complete Farmer. $1.
Cole's American Fruit Book. 50 cents.
Domestic Animals, by R. L. Allen. Cloth, 75 cts.; paper, 50 cts.
Downing's Fruits and Fruit Trees of America. $1 50
Downing's Landscape Gardening. $3 50.
Essay on Manures. 25 cents.
Farmer's and Emigrant's Hand-Book. $1.
Farmer's Manual.
Gardener's Farmer's Dictionary. $1 50.
Home Doctor. 25 cents.
Horse Doctor. 25 cents.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Johnson's Dictionary of Gardening.
Kirby & Spencer's Entomology. $2.
Knowlson's Complete Farrier, or Horse Doctor. 25 cents.
Ladies' Companion to the Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chemistry (pamphlet editions.) 25 cents each
Loudon's Ladies' Flower Garden. $1 25.
Mason's Farrier and Stud Book. $1.
Miner's Bee-Keeper's Manual. $1.
Norton's Elements of Scientific Agriculture. 50 cents.
Poultry Book, by Bennett. 75 cents.
Rural Economy, by Boussingault. $1 25.
Scientific Agriculture, by Rodgers 75 cents.
Stable Economy, by Stewart. $1.
The Bird Fancier. 50 cents.
Treatise on Milch Cows. 38 cts.
Trees of America $4.
Youatt on the Pig. 75 cents.

ALSO,

2 setts Chamber's Miscellany. $8 per sett.

⁂ These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired

---

Monroe Nursery.

TO THE PUBLIC.—I have a few thousand trees left over and above my contracts, which I offer at fair prices They consist of all the best and late varieties, and of the most thrifty and fine growth.

What is purchased at my nursery can be relied on with the greatest confidence, for I give my individual attention to the cultivation.

I want, this Fall, about 100 bushels of peach stones.

September, 1850. CHARLES POWIS.

TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F. REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds, Stained and enamelled Glass;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass, French White Looking Glass Plates, &c., 17 Buffalo street, Rochester, N. Y.

Wheeler's Patent Horse Power—Price Reduced!

FOR SALE at the store of JAMES P. FOGG, No. 14 Front street, Rochester, N. Y.

Price of one Horse Power, Thresher, Separator and Bands, $110
" two " " " " " " 135

Also, EMERY & Co.'s LATEST IMPROVED ONE AND TWO HORSE POWERS, at Manufacturers home prices.

October, 1850.

Agricultural and Horticultural Implements, and Field and Garden Seeds.

UPWARDS of *one hundred* kinds of Plows, and a corresponding variety of all other implements for the farmer, planter, and gardner; embracing the largest and most complete assortment to be found in the United States. Also, Field and Garden Seeds—a large and varied assortment. A. B. ALLEN & CO.,
August, 1850. [8-tf-o] 189 and 191 Water st., New York.

Timothy and Clover Seed for Sale

AT the Rochester Seed Store, Nos. 12 and 14 Front street.
Sept. 1. [9-2t] JAMES P. FOGG.

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Rochester Wholesale Prices Current.

Flour, bbl	$4.75 a 4.88	HIDES.	
Pork, (mess,)	$11.00	Slaughter,	3½ cts
Beef, cwt	$4.00	Calf,	10 cts
Do. bbl. (mess,)	$7 a 8	Sheep pelts,	25 a 46
Lard, (tried,)	7 cts	SEEDS.	
Do. (leaf)	7 cts	Clover, bush	$4.25 a 5.25
Hams, (smoked,)	7 cts	Timothy,	$1.50 a 2.25
Shoulders, do.	4½ a 5 cts	SUNDRIES.	
Potatoes, bush	31 cts	Butter, lb.	12½ a 14 cts
Corn Meal,	50 cts	Cheese, lb.	5 a 7½ cts
GRAIN.		Salt, bbl	92 cts
Wheat, bush,	$1.00	Eggs, doz	9 cts
Corn,	56 cts	Beans, bush	$1.25
Rye,	53 cts	Hay, ton	$10 a 11
Oats,	34 cts	Hard Wood,	$3 a 4
Barley,	58 cts	Rochester, Sept. 20, 1850.	

O. B. SCOTT,

Local and Travelling Newspaper and Periodical Agent.

PIERREPONT MANOR, JEFF. CO., N. Y.

☞ Mr. Scott will take subscriptions for the Genesee Farmer.

For Sale.

ABOUT 60 or 70 loads of leached ashes, containing 15 per cent. lime, desirable for sandy soil, or as top dressing for grass lands, fruit orchards, &c.

S. MOULSON,
86 Front street, Rochester.
September, 1850.

Buffalo Nursery and Horticultural Garden.

THE Proprietor of this old established Nursery, would call the attention of Fruit Growers, Nurserymen, and others, to the very large assortment of Fruit and Ornamental Trees, Flowering Shrubs, &c., now offered for sale. The Fruit Trees are vigorous and healthy, nearly all of which have been propagated from bearing trees growing in his own grounds.

Apple Trees—a very large stock of the most choice sorts, by the thousand, at very reduced prices. Pyramidal Dwarf Pear Trees—a fine assortment of beatiful Trees. The stock of Cherry Trees are also very fine, comprising the most select and noted varieties Also, a good assortment of the Peach, Pear, Plum, Apricot, Quince, and all the smaller fruits.

The assortment of Ornamental Trees, Flowering Shrubs, &c., comprises almost every desirable article. The stock of Evergreen Trees is truly fine. Annual importations are made from Europe of new and rare varieties of Fruit, Roses, &c. Apple, Cherry, Quince and Plum stocks by the quantity; and Nurserymen supplied with trees of large or small size at low prices.

Orders by mail, or otherwise, and all letters of inquiry, will receive the most prompt attention. Every article carefully labelled, securely packed, and forwarded with the least possible delay.

Descriptive Catalogues (a pamphlet of 60 pages) sent gratis to all who apply, postage paid.

B. HODGE.
Buffalo, N. Y., Sept. 1, 1850. [9-1t*]

Ross's Improved Fitzgerald Portable Mill.

New Haven, Conn., Sept. 6, 1850.

Mr. Charles Ross—Sir: In reply to your letter on the subject of your Mill, I have to say, that I have, under the direction of the Commissary General of the U. S. Army, Gen. Gibson, purchased several of them, with horse power, bolters, &c., complete, forwarding them to Mexico, California, Oregon and Texas, for use in connection with the army.

The Mill is found to answer every purpose required of a grinding mill, is easily kept in order, grinds rapidly, and of such degree of fineness or coarseness as may be desired. It can be adjusted readily to any kind of horse power, is portable, of small compass, of light weight and not expensive. I regard the Mill as eminently well adapted to army and navy, as well as to frontier use, as also well calculated to enable the grower of grain to make his own flour. For the grinding of spice, coffee, &c., &c., on a large manufacturing scale, it answers a good purpose.

I had one of your Mills put up at General Taylor's Head Quarters at Monterey, in Mexico. It worked well. I found it to be perfect in all its parts and features.

Very respectfully, your ob't servant, A. B. EATON,
Bvt. Major U. S. Army, and Com. of Subsistence.

These Mills are manufactured and for sale by the subscriber, at Curtis' Building, Main st., Rochester, N. Y.

CHARLES ROSS.

JOHN MAYER & Co., Water st., agents for New York city.
October, 1850.

NOTICE.

WHEREAS Messrs. Wheeler, Melick & Co., having recently removed to this city and leased of the subscriber a portion of his Manufactory for the purpose of manufacturing *Horse Powers* and *Threshers*, and have for several months past pursued a course of advertising which has had the effect, to a great extent, to mislead the public, by representing themselves as the proprietors of the *Albany Agricultural Works* and as manufacturers and *dealers generally* of Agricultural Implements, (*which are not the facts.*) to my great injury, as the ideas conveyed are, that our interests are either one and the same, or that they have succeeded me in the said establishment and business: Therefore, this notice is to inform our patrons and the public generally, that our interests *are* and *ever have been distinct* and *seperate;* and further, that on the copies of their advertisements being handed to the grand jury of this County, they were indicted therefor, since which time injunctions have been granted, restraining them from the further use of the name and other representations conveying the idea that they have any interest whatever in the said name or establishment.

October, 1850. HORACE L. EMERY

Seedlings, &c., for sale at the Geneva Nursery.

Two year old Pear seedlings,..................$12 per 1000
Cherry and Plum seedlings,.................... 7 "
Quince, budded this season with the choice varieties of Pear,.................................. 33 "
Cherry, budded this season with the most popular varieties,................................ 25 "

Buckthorn, Mountain Ash, and Horse Chesnut seedlings, from one to three years old, at low prices.

The above seedlings are of uncommon excellence.

Also, every variety of fruit and ornamental trees for sale at the Geneva Nursery.

W. G. VER PLANCK.
October, 1850. [10-2t*]

First in Beauty and Value—Cheapest and Most Popular.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF
Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.
P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

FIVE Copies for $2; Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free.) at the risk of the Publisher. Address to

DANIEL LEE.
Rochester, New York
December, 1849.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—NOVEMBER, 1850. NO. 11.

AGRICULTURAL SOCIETIES AND EXHIBITIONS.

If any one had doubts as to the fact whether agriculture was advancing in the United States or not, they would soon be removed by attending a few such rural exhibitions as have been recently witnessed at at Atlanta in Georgia, Cincinnati, Albany, Baltimore, in Michigan, Massachusetts, and other States.—County Societies have everywhere evinced the spirit of progress and improvement. The number of farmers in attendance has been large beyond all precedent, and the receipts from the free contributions of the public, such as to impart renewed strength and interest to the premiums awarded by these useful associations. Speaking of the Fair in Seneca county, the Ovid Bee says that it "not only surpassed all former exhibitions, but exceeded the expectations of its most zealous friends. The address of Prof. Norton was a perfect gem, and worth thousands of dollars to this county—*provided* its practical truths are heeded. When we first read the 'Prize Essay' of Prof. Norton, we never dreamed that he *could* be less than forty years of age, and the Address he delivered here has not lessened our estimation of his good sense, and industry, and talent. The fact that he is a *young* man, adds wonder to our increased admiration. The race of scholars and gentlemen such as he—may it never become extinct."

The addresses of this gentleman in Ontario and other counties in Western New York, have elicited applause from all that heard them; and no one is more competent to scatter broad-cast over the land the good seed of agricultural science.

In Livingston county the number attending the Fair was variously estimated at from .five to seven thousand, and the show of domestic animals worthy of so large a gathering of the people. In Chautauque the receipts for membership and admittance were several hundred dollars larger than ever before. They were also unusually large in Monroe county. In Erie, Niagara, Genesee, and Orleans, our accounts are equally favorable. Thirty thousand persons attended the Provincial Fair held at Niagara in Canada West. Forty thousand attended the State Fair held near Cincinnati, and the receipts were some $10,000. This is starting, not from the ground, but high up the ladder, in the Buck-Eye State. May her enterprising farmers continue to improve for a thousand years at each annual exhibition!

It is pertinent to inquire in this connection, in what way these rapidly increasing Societies can confer the greatest amount of good on the community at large. Usefulness should be blended with amusement, and we ought to increase in knowledge with the advancement of years. To attain this desirable result in an eminent degree, more care must be taken to establish and maintain a system of experiments in practical farming, with a view to disclose new and valuable truths. Thus, suppose twenty bushels of corn be fed to hogs, sheep, or neat cattle, and all the manure formed from the grain, both solid and liquid, be saved; how much corn at the next harvest, more than would grow without the manure, will the fertilizers derived from twenty bushels produce? We have searched all the works on rural affairs written in this country, of any note, to find a satisfactory answer to the above question; but without success. No one appears to know how many pounds of corn the manure derived from 100 or 1000 will add to a crop, under common treatment and circumstances. Obviously, the manure is as much the food of growing plants as the corn is the food of growing pigs. If, then, four or five hundred pounds of corn will make 100 of pork, how much manure, estimating it by the quantity and quality of the substances consumed to form it, will it take to yield 100 or 500 pounds of corn?

Again; who can say on what kind of soil the fertilizers derived from a ton of clover or timothy hay, a ton of potatoes, oats, or corn, will give the best return to the husbandman? What County or State Society has fairly tested by experiments duly authenticated, the exact returns realized from a given quantity of know fertilizers? Who can say, from evidence satisfactory to a knowledge-seeking mind, how much wheat the fertilizers contained in a barrel of flour consumed by the genus homo, (man,) will add to the harvest of an acre of that grain? Will 100 pounds of wheat produce a like weight again? Will it give more? and if so, how much?

Why should not our numerous agricultural associations use a part of their funds to determine the economical value of the different kinds of manure produced, or producible on the farm? If that obtained from 20 bushels of oats and 1000 pounds of timothy, clover, or mixed hay, is worth something; why not let the millions of cultivators in the country know how much it is worth, and under what circumstances? How is it possible to advance the art or science of rural economy, unless we labor to develop new and useful facts pertaining to the same? How few of these have been elicited by all the agricultural societies in America within the last twelve months! Who can say from actual experiments, that 1000 pounds of green grass or feed of any kind, will yield more milk, butter, cheese, or good beef, in the living machinery of a Durham, Devon, Ayrshire, Hereford, or native cow? What breed of sheep will elaborate most pounds of fine wool (not animal grease nor dirt,) from any given quantity of food? If a farmer has ten tons of hay and twenty of grass to be transformed into wool and mutton, who will furnish him with the best machines for the purpose indicated, with *proof* that his machines will yield a larger return in money, than those of others? When or where in this country, were several flocks of sheep fed equal weights of food for a year, to determine the exact productive value of each flock? Are we to go on guessing at these things forever, without increasing our knowledge in the least?

Has not the time arrived when the New York State Agricultural Society should have an experimental farm of its own? The truth, the whole truth, and nothing but the truth, is what the 500,000 agriculturists in the Empire State both need and greatly desire. How is this truth to be revealed? By what agency, and at whose expense? We have humbly urged the Legislatures of more States than one, as well as Congress, to assist the friends of agriculture a little, in developing the laws of nature which govern the growth of every cultivated plant and of every animal product called into existence by the farm labor of the United States. From these we expect next to nothing; but from agricultural societies we do hope for better things. They embody tens of thousands of the true men of the nation — men who are both able and willing to do *something* to leave the world wiser and better than they found it. The slavery of heaping up riches may be pleasant enough to those trained to bear the yoke from their infancy; but it is true slavery nevertheless. The Creator of all good, the Fountain of all knowledge, has placed a higher destiny than that of either physical or mental slavery, within our reach. Shall we make a common effort to attain it? That is the question. Our faith is strong that a united and successful effort will be made. The emancipation of our race from the bondage of ignorance and superstition in agricultural matters, is an achievement as certain as it will be glorious. In a few years, carefully conducted experiments in the science of agriculture will be encouraged and read with interest by millions in this Republic. Popular intelligence and opinion are coming up to this. Nor shall we have to wait more than another quarter of a century to see the first permanent agricultural school established in the State of New York. Slowly, silently, but with perfect certainty, knowledge and the pursuit of it will overcome every obstacle. The study of soils, of rocks, of climates, of plants and animals, will command the care and patronage not only of agricultural societies, but of goverunments. It can not be otherwise in this free and prosperous land, where the majority rule and the tillers of the earth constitute that majority. Bread and meat, fruit and potatoes, and the best means of producing them, are things, and the subjects of research, never to be dispensed with. Several county societies have given premiums to good housewives, for the best loaves of bread exhibited. These were tasted, with delicious butter, by hundreds at the Horticultural Show in Rochester. It is no mean art to be able to make superb wheat, corn, or rye bread, from the proper materials; and we allude to the example of the Rochester ladies as worthy of imitation in other societies. Let farmers furnish good flour and meal, produced with the greatest skill and economy, and their daughters be taught to make every pound into edible food to the best possible advantage. Domestic economy has its science, not less than field, garden, or political economy.

We rejoice at the good already done by means of agricultural associations. Some are providing their members with all the advantages of good professional libraries. This is a movement in the right direction. Do not forget the several valuable periodicals devoted to rural affairs, published in this country. They deserve better encouragement than they generally receive; and county societies will find agricultural journals their most efficient supporters. Keep the subject of improvement fresh in the popular mind by frequent meetings and public discussions or lectures. There is a vast difference between a living and a dead body. Vitality is a power quite as essential to a society as to an individual. See to it, then, that the noble cause of continued advancement in husbandry suffers no damage from the luke-warm support of its friends.

ANALYSIS OF THE APPLE.

A CRITICAL and elaborate anaysis of the apple has recently been made by Dr. SALISBURY, of Albany, the results of which are of deep interest to farmers, as throwing light upon the composition of this most important of all fruits. Much attention has within a few years been directed to the subject of feeding apples to stock, and although many well authenticated instances are given, where this fruit has proved exceedingly valuable, especialy for fattening hogs, yet many are incredulous as to its possesing sufficient nutritive properties to render it a profitable crop to cultivate expressly for that purpose. The facts elicited by Dr. SALISBURY, go to show that while apples contain about 3 per cent. more of water than the potato, yet "in the aggregate amount of fat producing products, they do not materially differ."

Six varieties were submitted for analysis: the *Talman Sweeting*, *Swaar*, *Kilham Hill*, *Roxbury Russet*, *English Russet*, and *R. Island Greening*. Of the five last named, the mean of the analyses of the ash is as follows:

	With Carbonic acid.	Without Carbonic acid.
Carbonic acid,	15.210	
Silica,	1.362	1.637
Phosphate of iron,	1.336	1.593
Phosphoric acid,	11.252	13.267
Lime,	3.442	4.199
Magnesia,	1.400	1.669
Potash,	31.810	37.610
Soda,	20.810	24.799
Chlorine,	1.822	2.169
Sulphuric acid,	6.062	7.229
Organic matter thrown down by nitrate of silver,	4.890	5.828
	99.396	100.000

"The percentage of ash in the apple is small yet rich in phosphoric and sulphuric acids, potash, and soda. 1000 lbs. of fresh apple contain about 827, lbs. of water, 170.4 lbs. of organic matter, destroyed by heat, and 2.6 lbs. of inorganic matter, or ash. 1000 lbs. of dry apple contain between 17 and 18 lbs. of ash. 100 lbs. of apple ashes contain, when deprived of carbonic acid, about 13 lbs. of phosphoric acid, 7 lbs. of sulphuric acid, 38 lbs. of potash, and 25 lbs. of soda: these four bodies forming about 83 per cent. of the whole ash."

The mean of the proximate organic analyses of the six varieties is as follows:

	1000 parts of fresh apple.	1000 parts of dry apple.
Cellular fibre,	32.03	190.879
Glutinous matter, with a little fat and wax,	1.94	11.463
Dextrine,	31.44	186.805
Sugar and extract,	83.25	497.627
Malic acid,	3.17	19.585
Albumen,	13.79	83.720
Casein,	1.64	9.921
Dry matter,	167.26	1000.000
Water,	826.64	
Loss,	6.10	
	1000.00	1000.000

"The ripe apple is rich in sugar and a body analogous to gum, called *dextrine*, which has the same composition as starch, but differs from it in being soluble in cold water, and not colored.blue with iodine. Dextrine and gum should not be confounded with each other. They differ very materially in many respects. Dextrine belongs to a class of bodies which are susceptible of nourishing the animal body. All the starch taken as food is converted into dextrine before it is assimilated by the system. The acids of the stomach possess the property of converting starch into this body.

"In the fresh apple, 100 lbs. contain about 3.2 lbs. of fibre; 0.2 of a lb. of gluten, fat, and wax; 3.1 lbs. of dextrine; 8.3 lbs. of .sugar and extract; 0.3 of a lb. of malic acid; 1.4 lbs. of albumen; 0.16 of a lb. of casein; and 82.66 lbs. of water.

In the fresh potato, 100 lbs. contain about 9.7 lbs. of starch; 5.8 lbs. of fibre; 0.2 of a lb. of gluten; 0.08 of a lb. of albumen; 0.45 of lb. casein; 1.27 lbs. of dextrine; 2.6 lbs. of sugar and extract; and 79.7 lbs. of water.

By comparing the composition of the apple with that of the potato, it will be noticed—first, that the former contains, according to the analysis, about 3 per cent. more of water than the latter.

Second, that dextrine and sugar in the apple take the place of starch, dextrine, and sugar, in the potato. Of the former, 100 lbs. of good fruit contain of dextrine, sugar, and extract, 11.4 lbs.; the latter has, in the same amount of tubers, 13.61 lbs. of starch, dextrine, sugar, and extract. The above proximate principles are the main bodies in the apple and potato which go to form fat. In the aggregate amount of fat producing products, it will be seen that the apple and potato do not materially differ. It would be natural, however, to infer that 50 lbs. of dextrine and sugar would, if taken into the system, be more likely to make a greater quantity of fat in a given time, or at least, to make the same amount in a shorter period, than an equal weight of starch; for the reason, that the two former bodies, although nearly the same in composition with the latter, yet are physically farther advanced in organization, and hence probably approximate nearer the constitution of fat. If this view be taken, then the apple, if of good quality, may be regarded equally if not more rich in fat producing products than the potato.

Thirdly, that the apple is richer in nitrogenous compound than the potato. 100 lbs. of fresh apple contain of albumen, 1.38 lbs. The same amount of fresh potato has one-fourth of a pound. 100 lbs. of dry apple contain 8.37 lbs. of albumen, and an equal weight of dry tubers has 1¼ lbs. 100 lbs. of fresh fruit contain of casein, 0.16 of a lb.; and an equal weight of fresh tubers, 0.45 of a lb. Hence it will be observed that 100 lbs. of fresh apple contain of albumen and casein, 1.54 lbs.; and the same quantity of fresh potato, 0.7 of a lb.

From the above it will be seen that in albumen the apple is richer than the potato while, in casein the reverse is the case—that the aggregate amount of albumen, casein, and gluten, in good varieties of the apple, is more than double that of the same bodies in the potato. Hence, the former may be regarded richer than the latter in those bodies which strictly nourish the system; or, in other words, to form muscle, brain, nerve, and in short, assist in building up and sustaining the organic part of all the tissues of the body.

The juice of the apple forms what was regarded not long ago a favorite and almost necessary appendage to the farmers stock of winter luxuries. It is now, however, looked upon by him with comparative indifferance as a beverage, he having found a far better and more profitable use for his apples, that of converting them into fat instead of alcohol. The juice of the apple after being fermented, is called cider, and contains much of the nutritive matter of the fruit. Cider contains alcohol, sugar, gum or dextrine, malic acid and the phosphates and sulphates of the alkalies, with a little tannic and gallic acids. The juice before being fermented, has in addition to the above ingredients, albumen and casein." F.

THE EXPERIENCE OF A YOUNG FARMER.

MESSRS. EDITORS:—I have been brought up to the occupation of farming in our poor way. My father was a hard working man of good moral habits, and was called a very observing man, but rather prejudiced against what he termed "book farming." He said he thought any intelligent farmer knew better how to till his own soil than a man who had never seen it could tell him, as different soils required different management, and more than one-half of those who wrote on the subject had no practical knowledge of farming whatever. But of late I have taken a little different view of the subject, especially since I have become a subscriber to the Genesee Farmer. I had to commence for myself with a very limited education and small capital, have had to dig for the support of a large family, and consequently my opportunities for reading have likewise been limited. I think, however, that there is some improvement in agricultural works as well as practical knowledge and your idea of urging every one to communicate every item of practical knowledge which he thinks is not universally known and practiced, I like first rate. But I know that I am very far behind the times, and feel very reluctant to expose my ignorance, especially to the editor of a periodical as well patronized and widely circulated as yours.

I think I have some little practical knowledge in the use of plaster; but what should I have known had I not been told? I commenced experimenting on a small scale some sixteen years ago, plaster at that time coming rather high, viz: $9 or $10 per ton, and sixteen miles to haul it, over hilly road. No one could have made me believe that the little dusting would have such an astonishing effect on the clover, had I not seen it. I have used it constantly, every year more or less, since I commenced. I do not pretend to raise a crop of grass without it; and I am well satisfied that I have been more than twice paid for the outlay, even at the highest price.

I was told that in the end plaster would impoverish the land—that it merely acted as a stimulus, and would eventally leave the land much poorer than when the use of it was commenced. Of this I am convinced, that I have not much to fear if I use a little discretion; but we must not be too greedy, or we shall be like the man in the fable, who wished to become suddenly rich. He could not be content to trace the rivulet to the big pond, but must have the golden stream come like a mighty rushing torrent. But he looks around, and his torrent has become dry and dusty. So if we apply the plaster, it starts the clover as if by magic, the big crop rolls out, we grasp the scythe, cut it off and take it away from the land, and perhaps repeat it the next season. We then plow, and put on a crop of corn. The effect of the powerful fertilizer, or stimulator, whichever you may be pleased to term it, is still on hand; we get a fair crop, and perhaps follow it with one or two of wheat or oats; then seed again, and anticipate the same round. But behold! all has become dry and dusty — our land is a barren waste. We have been robbing the land, and have returned nothing. But let us be content with one large crop of clover, if our land is in low condition, and give the land the next. Let it grow as large as it will, then put in the plow instead of the scythe—let it go deep—have a boy along with a forked stick, if necessary, to keep it clear and roll the clover under; and mark my word, we shall find the plaster has done the land no injury. I am sensible that plastering and turning in clover is the cheapest way of manuring a soil like mine which I have yet tried, except what I can obtain from the barn-yard and stables.

I have different views on the application of barnyard manure, from many farmers within the circle of my acquaintance, and from some publications which I have seen on the subject. I have seen one or two articles in the Farmer, which correspond with my views on the subject, or I would not say anything, as I should not be able to defend my position by analyses or a learned article on the subject; but if I am correct, I know many of my neighbors are losing a great deal of the benefit of their manure, by their practice of rotting before they apply it to the soil. My plan is to apply it as soon as I can, and plow it in, no matter how coarse. I never put straw in a pile to rot, but bed the cattle and horses well with it, and pitch it out on the pile during the winter; then take it out and plow it in. If I have more straw than I can use in this way, I take it along and plow it under. I will venture that the soil will fix the gases without any farther trouble.

As I have before stated, I am a firm believer in the plan of manuring with plaster and clover; but buckwheat — unless you can prescribe some means whereby it may be made, or the soil may be made, to retain the fertilizing properties, if there are any to the buckwheat — I can assure you that I have no faith at all in. Plaster will make buckwheat grow as well as clover; but I have bushed it down when it stood mid-sides to my horses, and plowed it under, when I was fully satisfied that it did not benefit the crop or the land in the least. I have tried the experiment repeatedly, and had now rather go with a team in the morning and turn in a good dew, than the stoutest crop of buckwheat I could raise.

We use a composition here, which answers a good purpose on corn. It is plaster, lime, and unleached ashes, about equal quantities on sandy land. If the soil is more clay, use less plaster; and if the soil contains more lime, of course less would be needed in the compound. Apply it after the corn is up — either before or after hoeing. Throw about a tablespoonful on each hill. PLOUGHER.

WE thank the writer of the above, for his valuable hints to his brother farmers. Buckwheat is worth a little more than he supposes; but it is considerably less valuable than clover, to plow in as a fertilizer.

A SINGULAR FREAK OF NATURE.

IN the winter of 1839, I saw, in the hands of a freind at Waterloo, a number of grains of what he called "Egyptian corn." It was to me a new variety, and I begged of him several grains of it for the purpose of ascertaining whether it could be successfully cultivated in our country. I had five grains, on a piece of the original cob; each grain being separately enveloped in a husk about an inch long, having the appearance of a very small ear growing out of the cob. I gave three of the grains to two of my friends, to experiment with; but I understand that they were lost. The remaining two grains I planted with particular care, about six inches apart, as early as the season would admit, in a well cultivated bed, on the south side of my wood-house. The grains grew well, and I attentively watched their growth during the summer and fall. It soon became evident that the corn was a larger and later variety than that usually raised in this climate. The stalks resembled those of the corn raised in the south part of the State of Ohio, being large, and ten or more feet in height. The ears did not set until about the last of August, and the silk did not appear until about the middle of September. One stalk produced two ears, the other (and larger one) produced but one ear. After the ears commenced growing they grew rapidly, and their growth seemed to be more and more accelerated as the warm season advanced towards its termination. After the weather became so cold as to entirely stop its growth, (about the 23d of October,) I pulled the corn, and examined it. The larger stalk, bearing one ear, produced "after its kind," with husks for every grain, although some of the grains were not fully formed within them. The two ears borne by the smallest stalk being the most forward, or earliest, were fit for "roasting ears;" but to my astonishment, neither of them had the least appearance of husks enveloping the grains, as was the case with the original grain which I planted! Here was a "poser." And the grains, too, instead of growing some five-eighths of an inch in length, as was the seed corn, were short, and nearly globular. They were white, and appeared to be all of the same kind —not the least intermixture could be detected. Indeed, intermixture by the pollen would have been about impossible, inasmuch as all the tassels of the corn in the neighborhood had been dead and dried up a month or more before this variety showed its silk. There was no corn within six rods of the latter, and none, but that which is called "sweet corn," in my garden.

To test the fact in regard to intermixture more perfectly, I roasted and ate the corn of one of the ears. It had not the least flavor of the sweet corn. If there had been impregration by the pollen, (which I verily believe to have been impossible,) I cannot conceive how it could possibly have been so perfect and complete, as totally to change every grain of both ears on the smaller stock; and that, too, to a variety which was not raised in the neighborhood, if at all in the country. And what renders the case more extraordinary, if impregration was the cause of the change, was, that the one ear of the larger stalk had a regular full sized husk for every grain, formed or unformed. It may, perhaps, be supposed that by some accident another grain had got there, and grew up, the one which I planted having failed to grow, &c. But I put a stake by the side of each grain when I planted them; they each grew up by the side of their respective stakes; the stalks appeared alike, excepting that one was somewhat larger than the other; no other corn grew up within six rods of the two stalks upon which I experimented; and the whole affair was carefully conducted for the express purpose of trying an experiment. I am perfectly satisfied that no such, nor any other accident happened, by which I was deceived in regard to this matter. I am also satisfied that the grains which I planted, grew; and that one of them, without impregration, by the pollen of any other variety, produced metamorphosed (transmuted?) corn, every grain being entirely different from the seed, and different from any corn grown in the neighborhood. How nature managed the matter, I can not understand. J. H. H.

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HOW TO KILL ELDERS, AND IMPROVE THE FARM.

Messrs. Editors:—In looking over the Genesee Farmer of 7th month last, I saw a request that some of its many readers would furnish a plan by which elders might be killed. These bushes are a pest to the farmer; and in thinking about it, I have hit on a plan that will destroy them, and make a second rate farm in a few years yield twice the quantity of produce it does at present, which will be something.

Well, the first thing to do, is to make a reservoir where the wash runs out of the barn-yard. Make it as near the yard as possible, and as large or larger than the yard. "Well!" says one, "what has this to do with killing elders?" "O!" says another, "I see what he is at—he is going to fill this pond with water and then throw a pinch of Homeopathic medicine in it, and sprinkle it on the elders, and kill them with doctor-stuff." Well, now, I am going to do no such thing; but we will put something in it better than doctor-stuff. I will not say what that is just now, but I will by and by, when it comes in course. The next thing to do, where there are elders growing along a fence, (for they mostly grow there,) is to cut them close to the ground; then take away the fence, trunnels and all, and put it up clear of the old bed; then throw the tops over to one side, and take a good plow with a sharp share and cutter, and turn up the roots; then harrow it four or five times with a heavy harrow having long sharp teeth. This will bring most of the roots to the surface. Let them lay in the sun one week; then heap the elder tops on the bed and set fire to them. When they are fairly ignited, throw on the roots. This will burn them up root and branch; and instead of having rank, green elder, we will have a fertilizer in the form of ashes. Repeat this process once a week for four weeks, and by that time the bed will be in a nice state for the shovel.

Now for the Reservoir. Take a cart and haul it full from this bed, then level down with a plow, leaving the clear-up furrow in the middle. This will leave a convenient ditch to take the wash of the next rain, after which plow it again. Turn the ridge this time in the middle, and gather-in. This will throw the wash of the next rain to the sides. Plow it alternately in this way once after every heavy rain, and by seed-time it will be ready to haul out for wheat. Spread on after the last plowing, and harrow it in with the wheat.

I have found that a load of this compost will make as much wheat grow as a load of barn-yard manure of equal bulk. Now, instead of manuring one field for wheat, the farmer can manure two, and raise double the quantity he formerly did. This reservoir is the farmer's friend. Do not let it lay long idle; but after it is emptied for wheat, fill it again for corn, from the remainder of the old bed, and work it as the first. Let it lay during the winter, and the next spring, at planting time, when the corn is dropped, cover each hill with a shovel full of this compost. It will cause it to come up rank and green, and grow right up from the start, so that the worms will not like it; and in a good season, even on thin land, it will average forty bushels per acre: whereas, in planting in the old way, there will be but ten or fifteen bushels. There are twenty-five bushels of corn for every acre, to pay for the labor, besides enriching the soil for succeeding crops.—"Well," say half a dozen at once, "but this is too much trouble; I am weak handed, and my farm produces light crops; therefore I cannot afford to hire. I can't do it." Stop, my brave, hearty young farmers, don't say "can't"—that word should not be spoken here. It is true that here is a difficulty to start with; but something can be done, for you as well as for the rest. Follow out my plan, from beginning to end, and then your reservoirs will soon be full without paying one dollar, or missing the time either. Rise in the morning as soon as the first ray of light shoots up from the eastern horizon, and go at it and work until sunrise; then you can go at your other work. By following this practice regularly, you will have this work completed, and have as much time to do your other work as the man has who indulges himself in lying a-bed till sunrise. There are so many advantages that would arise from this plan, that space will not admit of even naming them all here. I will only mention one or two, viz: It will enable the farmer "to plow in hope," and learn him to "plow deep while sluggard sleep;" and by the time he gets all of his fence rows cleared out in this way, if his farm, with good culture, does not yield double the produce it did before he commenced, I will give him leave to set me down for a

Green Farmer.

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Information Wanted.—I should like to have some person who is familiar with the rise and progress of Durham and Devon cattle, publish the pedigree descent in your columns, and oblige, J. H. Swetland.—*Saratoga Co., Sept.*, 1850.

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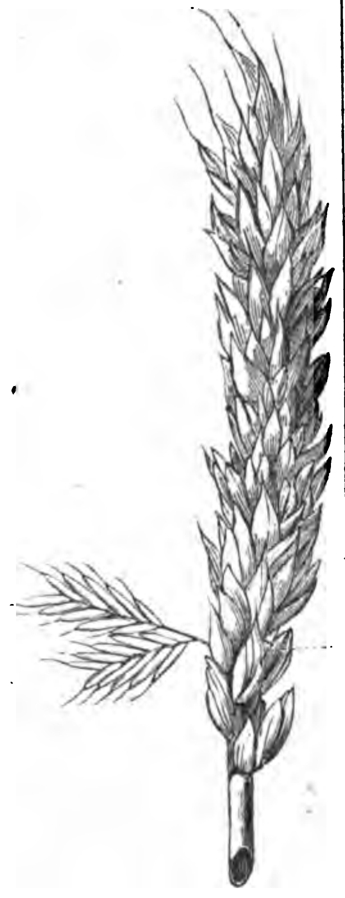
Even the scanty display of blossoms in a window, or the careful training of a honeysuckle around a cottage door, is an unmistakable evidence of gentle spirits and an improved humanity within

Wheat Husbandry.

CHESS AND WHEAT.

All have perhaps heard and read enough of the vexed question, whether *wheat* will or will not produce *chess*. Men of science universally reject the idea that *wheat* turns to *chess*, as they are of a different *genus*. New *varieties* of the same species and genus are produced by the admixture of pollen.—Thus, the different varieties of corn will readily mix; but wheat will not produce oats, nor oats rye. If wheat turns to chess, it presents a solitary exception to the laws which govern the vegetable kingdom—an anomaly in the vegetable world. On the other hand, many farmers present facts, which certainly look rather *stubborn*, as facts are apt to do when they stand in the way of a favorite theory. Of course, if chess could be found growing from the same root, and on the same stalk with wheat, theory would have to surrender. Large sums of money have at various times been offered for a specimen of wheat and chess thus connected; and though we do not recollect that the reward was ever claimed, yet scores of men are to be found, who are willing to testify that they have seen wheat and chess growing together.



A few weeks since, a head of wheat and chess, (an exact copy of which is seen in the engraving,) was left at our office by a farmer of Williamson, Wayne co., who thought himself entitled to the prize. The appearance, at first sight, favored the idea; but on close examination, and on removing one grain near the dotted line, and bending down the hull, we could readily perceive the ends of the two chess stems, and by moving them the heads were moved, showing that there was not the least connection between the chess and wheat. Had not this specimenn been subjected to a close examination, our friend of Williamson, and all who happened to see it, would have been willing to have testified years hence, that they had seen wheat and chess growing from the same straw. The chess must have become entwined around the wheat while the head was forming, and been secured there by the growth of the grain and chaff. When ripe, of course the stem, being very slender, was easily broken off in reaping, or in some other way. We presume this is about a fair specimen of the many heads of wheat and chess that have been seen growing together in various parts of the country.

SMUT.

Messrs. Editors:—With your permission I will tell you what I know of the growth of smut. I commenced harvesting a good piece of wheat, and when we came to the side next the woods, my cradler called me to him. I there found a spot, about two feet square, on which there was no wheat; and for some distance around, the wheat had grown up six, ten, and twenty inches, and died without heading. Then for one or two feet more, it was all smut. A little further, about one-half was good; and a little further still, all was good wheat. To ascertain the cause I examined the spot, and where there was no wheat I found a skunk that I had killed early in the spring; that is, the bones and hair. The stench was about as strong as ever.

I have lived on a farm in this county, over half a century. When farming was first commenced here, it was in small patches in a heavy forest, and we were all troubled with smut in our wheat, till we brined and limed our seed. I once failed to prepare seed enough for a lot, and I sowed dry wheat to finish. The result was, the dry seed did not produce over three quarters as much as the prepared seed did, and was very smutty. It was all sown in one day, and on the same quality of ground.

I once saw a piece of wheat growing in a sugar orchard, and at least one-half was smut. I then thought, and still think, that the impurity of the atmosphere, caused by maple trees, produced the smut. Since our wheat-growing lands have become older, we are not troubled with smut as formerly. I consider it of great importance to change seed wheat from oak to maple lands as often as every three or four years. I believe wheat sown ten years on one farm, without brining and liming, will not produce much over one-half as much as it would if the seed had been changed two or three times, from ten to twenty miles, and also from a different soil. D. K. K.—*Port Byron, N. Y.*, 1850.

SMUT IN WHEAT, AND THE CAUSE OF IT, AND PREVENTION.

Messrs. Editors:—I have read, in the Genesee Farmer, several articles concerning smut in wheat, written by J. H. H. I suppose him to be one of what I call the "never-sweats"—that he is rich, and has nothing to do but to hunt up bugs and bottle them, and has thereby made the great discovery that a certain bug will eat smut in wheat. I have hogs that will eat corn; but they do not produce any. This great discovery is so foolish, that I am constrained to write an easy and simple remedy for smut in wheat, and will tell the cause of it. The practice I have followed over twenty years, and it has never failed. First, select your seed wheat standing in the field, that is clear of smut; let it stand till it is pretty ripe; cut it in the middle of the day, when it is perfectly dry; shock it up and let it stand till it is thoroughly cured; then draw it into the barn and put it on a scaffold over the floor, or where it can not possibly heat; thresh it when you please, clean it well, and screen out all the little kernels—save none but the best: and I will warrant you will have no smut. You may sow early or late, wet or dry, on any land you please, and J. H. H.'s bug will starve.

Now, THE CAUSE OF SMUT. Farmers generally are in a hurry when mowing commences, and will try to get as much of the clover and lodged grass mowed as they can before harvest, and put it into the mow, many times too damp. Then when harvest comes on, they are in a hurry to get their grain cut and drawn in, and very often draw it in rather damp, and mow it right on the hay. Then it becomes heated, and the top of the mow is heated as much, perhaps, as any part. Most likely they will then take off of the top of the mow, and thresh for seed. This wheat, or any that has been heated, will produce smut according to the amount that it has been heated. If there is any smut in the mow, you are sure to have some smut. A certain man in my neighborhood, about ten years ago, had a fallow of about seven acres. He saved his seed, and stacked it when pretty green, and it heated. He sowed the whole piece with the wheat that had been heated, except a small portion which he sowed with one and a half bushels that he got of me. When the wheat was grown, that part sown with his seed was at least one-third smut, while not a head of smut could be found on that sown with the seed procured of me. It was all sown the same day. C. C.—*Starkey, N.Y.*, 1850.

WANTED, A LITTLE MORE EXPLANATION ABOUT "SMUT BUGS."

MESSRS. EDITORS:—I have been highly pleased and interested in perusing the various arguments adduced in regard to smut in wheat and the cause of it. The *truth* is, or ought to be, what all are searching for; and can the true cause be found, and satisfactorily explained to the world, a very important mystery (to wheat-growers, at least,) will be solved. It is a subject upon which I have bestowed much thought, and made considerable search and much inqury for the cause; but I am as yet in total darkness in regard to it, so far as my own personal views are concerned. Neither do I believe any of your correspondents who have spoken on this subject, to be on the right track. Mr. J. H. H. has considerable to say; and as I believe him to be a matter-of-fact sort of a man, and *his* argument the only one worth examining, I am sorry to disagree with it: but notwithstanding his veracity, and firm belief in his own theory, I am, from the following facts, compelled to believe it all a "hum-bug," instead of smut bug.

In 1845, my spring wheat was very smutty, and was getting worse every year. In 1846, I thought I would, for experiment, get a new kind of seed; and accordingly I obtained a bushel of the Italian, as that was said to produce well. I sowed three acres—two and a quarter acres with the old kind, after washing it with strong brine, (as that was the last prevention I had then heard of,) and three quarters of an acre with unwashed Italian. When ripe, I found, as usual, the old kind about one-tenth smut; while the Italian, though standing side by side, and the adjoining edges intermingled by dragging, was *entirely free* from it. I could find smut heads of the old kind, several feet from the line, among the Italian. I could also find heads of the latter among the old kind; but, after a long and close examination, was compelled to give up, without finding a single head of the Italian smutted. Since then, I have, in two different fields, sowed the Black Sea wheat beside another kind, on the same day, and harvested them the same day, finding the Black Sea free from smut, while the other was scarcely more than three-fourths good wheat.

One more fact, and I will leave the "ground." A friend of mine, three or four years ago, prepared a piece of eight acres for winter wheat. He sowed and dragged in four acres. It then commenced raining, which prevented sowing the other four acres until two weeks later, when it was also sowed with the same kind of wheat, threshed and cleaned at the same time. When harvested, the part of the field first sowed was found to be very clean, nice wheat: while the last was shrunken and very smutty.

Now, if smut is caused by a bug, I should like to have Mr. J. H. H. explain why they were not, in the first cases, as likely to crawl up the stalks of the Italian or the Black Sea, as of the other; and in the last case, I would respectfully ask what possessed all the "bugs" to leave that part of the field first sowed, and attack the other half so voraciously?

As I know not the cause of smut, (as I stated before,) I know of no preventive that is sure in all cases. All I can say, therefore, is that the most successful course with me, is to sow seed that is as free from smut as possible, if not entirely, and change the seed as often as every third year; that is, change with some of your neighbors or friends, for some that grew on a different soil from that you intend to crop. D. A. C.—*Dryden Hill, N.Y., Sept.*, 1850.

TO PREVENT SMUT.

MESSRS. EDITORS:—I will give you my experience in preventing smut. About twelve years ago, on my farm in Brighton, I raised a field of wheat of about five acres, which was so smutty that I thought it would not pay for threshing; so I fed it out. But, as a matter of experiment, I threshed enough to sow the same field again. I soaked it all night in water strong with salt, and stirred it up and skimmed off all the smut and shrunk wheat that rose to the top. In the morning I rolled it in fresh slaked lime, and sowed it on the same field where it had grown; and I did not discover a head of smut in the field. I was much troubled with smut before this, having to wash most of my wheat before grinding; but since I have pursued this course, I scarcely ever see a head of smut in my fields. My neighbor, MATHEW DRYER, was troubled in the same way—pursued the same course for two or three years—and got rid of the smut. These are facts, and important facts for the farmer. The question whether smut is caused by a "*bug*," or by some other cause, although a very interesting subject of inquiry to the curious, is of very little practical consequence as long as we know an effectual remedy, easily applied, and within the reach of all. I should of course prefer to sow clean wheat, if I could procure it readily; but I should sow smutty wheat that had been limed and brined in the way I have mentioned, with perfect confidence that the vitality of the smut had been destroyed, and that its effects would not be seen in the next crop. This confidence has been gained by my own experience, and my observation of its success among my neighbors. I had tried various remedies previous to this. HIRAM ROBBINS.—*Brighton, N. Y.*, 1850.

Answers to Inquiries.

TO RAISE WATER BY THE SYPHON.

Eds. Gen. Farmer:—I have on my farm a well twenty-seven feet deep, supplied by a large fountain of water, from which I wish to take water in a lead pipe syphon to a point about three feet below the bottom of the well, where I wish a small stream to run; to do which, I shall have to raise the water in the syphon about twenty feet above the surface of the water in the well. Can you tell me whether it will continue to run as long as the syphon is in order and the supply of water good, or will the syphon after a time fill with gas and stop running? If so, by what means can it be best prevented, and what size and how heavy pipe will it require? Joseph Briggs.—*Willet, N. Y., Sept.*, 1850.

The quantity of water that may be drawn from a well in a continuous stream, as whiskey is sometimes drawn from a barrel through the bung, depends entirely on the size of the springs or streams flowing into it. Only a small lead pipe should be employed, unless you are certain that the fountain is abundant. If this is the case, little apprehension need be felt that gas will interfere with the flow of water after it once begins. Fill the pipe with water before it is put in, having one end in the water of the well and the other lower, for delivering the water where needed. If from any cause the running should cease, an air pump would start it again, or the pipe must be filled with water.

* * *

BEST MODE OF FEEDING BRAN.

Messrs. Editors:—There are many persons, and some of them your patrons, who have been looking for an article in the Genesee Farmer, on the best plan (or one that you would recommend,) for feeding wheat or rye bran—whether it should be given to hogs, horses, cattle, &c., dry, or wet with water just before being fed, or soured, &c. We hope to hear from you in the September number of your paper. Thomas F. Watts.—*Russellville, Ill., Aug.*, 1850.

We think it better to wet bran before feeding, than to give it to hogs, horses, or cattle, dry. The addition of a little salt (as much as would suffice for bran bread,) is an improvement. The souring of bread, milk, meal, or bran, may possibly increase the nutritive properties of these articles of food; but we never saw any satisfactory evidence of the fact. The difference, however, between ten pounds of sweet bran, meal, or milk, and same sour, can not be great in the readiness with which the aliment is digested. Habit has much to do in this matter—some preferring sour, and others sweet food.

* * *

TO DESTROY THE WIRE-WORM.

Messrs. Editors:—I have been a reader of your paper for a few months past, and have observed that inquires are frequently made on various subjects, and answers solicited from you or some of your numerous readers; consequently I thought it would not be improper to solicit information on a point on which I have as yet seen nothing. It is, whether there is any practical way of destroying wire-worms, which for two years past have very much troubled, and in some cases entirely destroyed, our crops. Last season their ravages were wholly confined to low, wet, black loam soils; but this season they are much more numerous, and many of our dry hill lands have been filled with them, to the entire destruction of all vegetation in some cases. If you can give us any practical method of destroying them, you will confer a great favor; not only on me, but many others in Chenango county. J. S. B.—*Lncklean, N. Y., July*, 1850.

We respectfully ask for information on the above interesting subject. Can the worm be killed by freezing and late fall plowing? Some of our readers are well satisfied with the effects of salt.

LAME HOGS.

Messrs. Editors:—Can you or any of your correspondents give me, through your Farmer, a remedy for lame hogs? Several times this summer my hogs have been so lame that they could scarcely get up or walk. It is mostly in their hind parts, and apparently much like rheumatism. They have nothing to eat but sour milk and grass, and of that a plenty. On washing days, however, there is a pail or two of soap suds thrown into the swill barrel, and now they begin to get a few fallen apples.

I am not alone in this difficulty, and a remedy would much oblige my father, several neighbors, and your humble patron. J. Dunham.—*Etna, N. Y., Aug.*, 1850.

At the south and southwest the affection above briefly described is not very uncommon. It is generally attributed to inflammation in the kidneys, which occasionally are found to contain worms, on a post mortem dissection. Examinations of this kind have been too few to enable one to speak with confidence on the subject. Probably, different causes conspire to produce the lumbar weakness and affection of the nerves that extend to the hind legs, and induced inability to walk, if not to stand on the feet. The disease is most prevalent on low, rich bottoms.

Wood ashes, salt, and pounded roll sulphur, using only a little of the latter, are the most popular and successful remedies. By placing salt and ashes in troughs to which hogs have access, they will eat enough to keep their blood in good order. To this compound many large hog-raisers add sulphur, and regard it as a decided improvement. Sulphur alone, given in the salt eaten by cattle, is found by experience to free them of lice and ticks—the latter being very troublesome in Georgia in the summer season. Swine are subject to liver complaints, and need a plenty of salt, either in their feed or as cattle and sheep are salted. They are too often neglected in this particular.

Poultry Statistics.—In the first chapter, or Introduction, of his "Poultry Book," Dr. Bennett makes the following statement: "From this table it appears that the value of poultry in the single State of New York, in 1840, was $2,373,029; which, on comparison with other tables procured by the same census, shows that this sum exceeds the value of the sheep raised in the same State, *the entire value of her neat cattle, and is nearly five times the value of horses and mules raised within her borders.*" This monstrous absurdity was hatched at the big chicken convention held in Boston something like a year ago; and after traveling in newspapers and other prints twelve months without exposure, is now bound in cloth in a very fair duodecimo volume.

The State of New York has over a million of cows, nearly as many more of young cattle and oxen, six millions and over of sheep, and horses and mules to match, and the whole are worth less than $2,373,029 invested in poultry! A "rooster" must sell for more than a horse, before what Dr. B. calls "the gallinacious order of poultry" will be worth "five times the value of the horses and mules" in the State.

* * *

Fraud in Guano.—The London Gardener's Chronicle says that three times as much Peruvian guano is sold in England, as is imported; and that the names of ten firms in London alone are known, who are engaged in preparing *loam*, and selling it for Peruvian guano. One of these firms disposes of thirty tons a week.

PREPARATION FOR WINTER—ITS IMPROVEMENT.

THE *great work* for the season is now over, and the winter, the time of rest for the farmer and his fields, is fast approaching. The seed has been sown, the crops cultivated, and gathered into the storehouse for future use, or sold to replenish the farmer's purse. Few, we think, can look back upon the past season without noticing something which might be improved another year. Dull must be the intellect of the man who has passed through the summer without learning some useful lesson of importance in his profession. The season has been remarkably favorable for the perfection of vegetation, for which we ought to be grateful to him who "tempers the wind to the shorn lamb." But, we will venture the assertion that, extraordinaries excepted, the success of each has been in proportion to the amount of *intelligent* labor expended. It is not him who works the *hardest* that does the *most* work. It is not always him who expends the most labor and toil and sweat on his land, that works the most *successfully.* The horse or the ox has strength — the power to labor — far beyond man; yet how useless is it, unless directed by *man's intelligence.*

The farmer may now calculate his profits for the year; but we fear there is one matter too often forgotten in such estimates. The farm is the farmer's capital—his stock in trade. The profits over paying cost of labor, &c., is the interest on this capital. If, in making the crop of the present year, the land has been made poorer — less able to produce a good crop next year—you have been taking from your capital, and dreaming that you were only drawing the interest—you have been lessening the value of your stock in trade, and calling the proceeds the legitimate profit of your business. You have been foolishly killing the hen to get a hat full of eggs at once.

There is much to be done in the fall by every farmer, to render all comfortable through the winter. Sheds need repairing, or new ones should be built. Apples, potatoes, and garden vegetables need attention. If not already secured from frost, no time ought to be lost in protecting them from the same. Bank up the cellar, have a good supply of fire wood under cover, and see that all stables and yards are ready for use. Remember that to a considerable degree, warm shelter for domestic animals is equivalent to food. If exposed to storms and severe cold, they will need thirty per cent more forage to carry them well through till May than they will if properly housed and fed. In addition to this, their manure can be all saved and turned to a valuable account next season. By attending to the comfort of the animals over whom the Almighty has given man control, therefore, by a wise provision of Providence, he advances his own *interest;* and not only his own *interest,* but his *comfort.* Who can sit *comfortably* by the blazing fire of a freezing winter's night, and enjoy themselves, while they know that their animals are exposed to the peltings of the pittiless storm. Duty and interest go hand in hand.

Keep your dung heaps under shelter, that they may lose nothing by leaching. Make provision for watering stock conveniently, if your premises lack in that regard.

While preparing for winter, forget not to add a few choice books to your agricultural library, for the whole family to read and improve in useful knowledge.

The following remarks are from Prof. NORTON: "Although the northern farmer is precluded from plowing and sowing during the winter months, and although his time for actual field operations is thus materially shortened, his condition during the cold season is by no means tedious or unpleasant. He is able to give his undivided attention to the feeding and well-being of his stock, and *ought* to study their nature thoroughly, as well as observe carefully the effects of various kinds or preparations of food upon them. His reduced force may thresh out the grain at their leisure; all tools should be put in the best possible order for the coming campaign, also carts, wagons, and harnesses repaired, so that they will not be likely to fail at any critical juncture. It is the time, too, for making out and ballancing farm accounts, writing up records from notes of past experiments, and devising new or confirmatory ones for the coming season. These are fit occupations for the long evenings. But, more than this, he has abundant time for study and reading. It is a common complaint among practical men, that they can not understand scientific books, or what scientific men say. This is certainly their own fault, for there are few farmers who could not, by a little study and perseverance, get enough instruction to be of very great advantage to them in these respects. It is the improvement of leisure hours, by reading and reflection, that produces the clear-headed, sound-thinking men, a few of whom are to be found taking the lead in nearly all of our country villages. Their aim, hower, has hitherto been chiefly to increase their stock of historical and political knowledge, or of general information. They ought now, in addition to these, to devote attention seriously to sciene in connection with agriculture. The mechanic, the manufacturer, the engineer, who could not tell why he employed such and such machinery, or invented certain new arrangements, or point out with distinctness the results to be arrived at by certain combinations, with the reasons therefor, would be considered but poorly acquainted with his business; and yet, how many farmers are to be seen every day, who do not even know what one of their crops contains, what their land is made of, or what is the necessity of applying manure, so far as to explain its effects. Let us hope that this state of things will not long continue; that farmers as a body will rapidly improve under the spirit which now begins to prevail among them; that they will soon understand their own profession, both practically and theoretically, as do those who engage in other pursuits."

* * *

PERMIT me for the benefit of those who read your paper, to bring to notice through its pages a recipe for making a mixture called *rat gas.* There are some individuals in this place making the sale of recipes a matter of self interest, and I therefore propose giving it to the farmers on a cheap scale.

Recipe.—1 oz. phosphorus, 2 oz. Curcume. 1¼ lbs. lard, 3¾ lbs. wheat flour, 3½ qts. water. First put in the water and lard, let it warm so you can hold your hand in it; then put in the flour and curcume, and stir it till well mixed; then put in the phosphorus and stir it till it is done sparkling. When it is cool it is fit for use. It explodes in the stomach and causes death. It can be given on bread, with a little lard over it, or in meal. G.—*Spafford, N. Y., Oct.* 1850.

P. S. I hope T. B. MINER will tell us how to remedy moth in Bees.

S. W.'S NOTES FOR THE MONTH.

Typographical Errors. — The compositor, in my notice of Jenny Lind, last month, set up an erasure which spoiled my English. Furthermore, and for his own benefit, I advise him to read Shakspeare over again; so that when he has a bad manuscript quotation, he may correct it from memory, and not set up "fall" for "pall."

Improved System of Manuring and Feeding. — Joseph Harris, in the last Farmer, gives an article which should be read by every farmer. He has the rare good fortune to unite scientific knowledge and experiment with practical skill and experience. Mr. H. contends, without undervaluing carbonic acid or the inorganic manures, that nitrogen or its equivalent, ammonia, is required in much larger quantity than any other simple substance, to all grain-bearing soils; and that without its liberal distribution in the soil, the presence of all the other grain-bearing elements in sufficient quantity for the maximum yield, can not compensate for a deficiency of nitrogen. He sets it down as a fixed fact, that if a cereal crop is fed all the nitrogen it requires, in the shape of barn-yard manure, the inorganic part of such manure is amply sufficient for the crop; and that any deficiency there may be of carbonic acid, will be supplied by the atmosphere. Hence he urges every grain-growing farmer, by all manner of means, to keep stock enough to work up all his straw into manure; and that instead of continuing the practice of plowing in green clover, it should rather be converted into hay, and fed to stock in preference to timothy hay, which he classes among the nitrogen-consuming cereals; while, on the other hand, clover collects more nitrogen from the atmosphere than it takes from the soil. Some of our best wheat-growing farmers have long since found that the plowing in of green clover alone, without the addition of animal manures, was insufficient to keep up, from year to year, the wheat-bearing pabulum in the soil; but, strange as it may seem, the system is still persisted in with steadily increasing dimunition of crop, without any attempt on the part of many farmers, to save, increase, and apply, barn-yard manure. Mr. Harris, having been two years chemical assistant on the experimental farm of Mr. Lawes, in England, gives tables to show the relative flesh-forming capacity of different articles of vegetable food, in which he sets down oil-cake as containing five times as much nitrogen as Indian corn. This seems almost incredible, as corn contains much oil; and oil-cake, after being subjected to hydraulic pressure, is supposed to contain very little. At any rate, it is certain that no herbiferous animal excrement is so rich in nitrogen as that of the corn-fed hog. But in relation to the flesh-forming capacity of food, no one article alone, no matter how nutricious it may be, can be economical food. Such is nature's mysterious laws of nutrition, that it has been found when roots have been supplied to the fatting animal, that a very small portion of corn or oil meal was necessary to put on the most rapid accumulation of both fat and flesh.

Seneca County Fair. — It is said that the late Fair at Ovid was more than creditable to the rural progress of our all-arable, semper-fertile, unromantic, yet truly picturesque, little county of Seneca. For the details of the exhibition, I refer to the Waterloo Observer. Suffice it to say, that more than 100 fine horses, and 130 head of cattle, were there shown; carriages and farm implements of the most recent and approved construction, and household products of great excellence and variety, were there; and as if to crown all the outward display, the spacious new court-house was decorated with wreaths, boquets, cornucopias, and ornamental plateaus, containing more than eighty varieties of flowers, the perfume of which filled the surrounding atmosphere.

> " And what a wilderness of flowers!
> It seem'd as tho' from all the bow'rs
> And fairest fields of all the year,
> The mingled spoil were scattered here.'

So much for the tasteful floral contributions of "Araby's fair daughters." Two essays were read the first evening — one by Mr. Wykoff, on the influence of rural pursuits. Besides being interesting and creditable, it was delivered with that modesty which in a young man gives evidence of progressive ability. May his example be followed by other of our farmers' sons at the coming Fairs. Let them remember that a great school-master has averred that he had never thoroughly commenced learning until he began to teach. President Delafield read an essay on "the relation of vegetation to the season." My word for it, it was not like Goldsmith's animated nature elaborated in a garret, but in nature's own laboratory. I hope to see it in print.

On the second day, after the very animated plowing match, Professor Norton addressed the assembled host in the great square, on the subject of that great staff in life's pilgrimage, "Wheat." It has been said that the matter, although practical, exceeded the appreciating powers of the auditory. Be this as it may, the address is to be printed, when every farmer who had not the quick ear and practiced perception of a newspaper reporter, can "read, mark, learn, and inwardly digest" it at his leisure: may none neglect it.

It is now evident to the most obtuse and limited observer, that the establishment of our agricultural fairs has already done much for rural progress. The spirit of emulation among farmers has increased, to the manifest social elevation of both the farmer and his calling; and the day has at length arrived when the title of farmer gives to the imagination something better than the figure of a man of mere plodding, unintellectual labor, whose animal comforts and pleasures are unrelieved by one single ray of that intellectual light which enables him to see and investigate those laws, and that *modus operandi*, by which nature gives him his corn and his cattle. 'Tis true that there are still among us many *book-hating*, impracticable farmers, some of whom not many years ago reluctantly tolerated Jethro Wood's "pot metal" plow. I well remember when the bare mention of Clinton's big ditch aroused their indignation. Now, in the era of plank roads coming up to their thresh-holds, they are in a state of continual litigating disquietude. But the example of such men (call them not farmers) is no longer a misfortune — they will soon be gone, and the age of better things will toll their requiem.

Free Schools. — The editors of the Genesee Farmer have decided wisely, to keep the exciting discussion of the Free School question out of its columns. That the law will be affirmed by the people, the signs of the times but too plainly indicate. If every voter was subjected to a conditional poll tax, the result might be different. — *Waterloo, Sen. Co., N. Y., Oct.*, 1850.

Rural Architecture.

COUNTRY HOUSES.

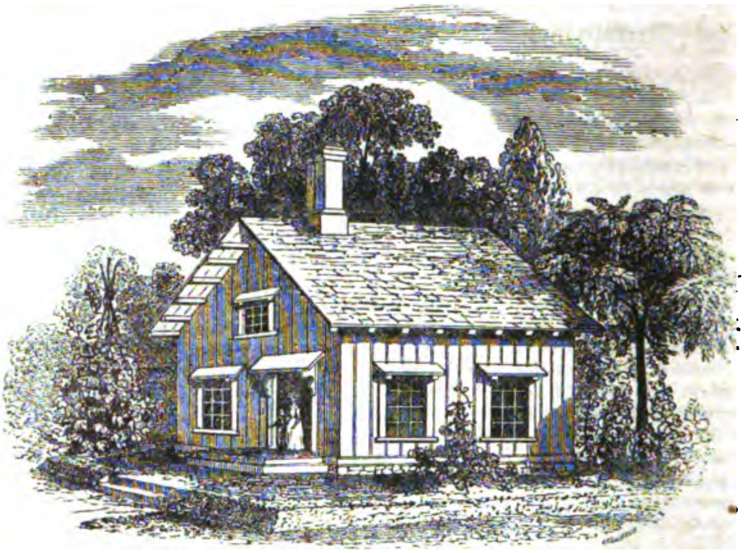
We have long been of the opinion that a book was needed on country houses—a book so cheap as to be accessible to all, and containing plans for houses—not for the benefit of the rich, who can afford to employ an architect, and spend any amount of money in their construction,—but a book combining economy with taste—one that would furnish the poor man struggling to gain a "sweet home" for himself and loved ones, plans at once cheap and tasteful; or that would give him, from the study of the models furnished, such a knowledge of rural architecture and the requirements of correct taste, as to enable him to form his own plans to suit his own circumstances. One of the present editors, before his editorial connection with the Farmer, furnished the following article for its pages:

> It has been said that "true taste is a good economist." Now taste, when kept within proper bounds, may be economy; but we often see TASTE get the upper hand of REASON, and drive rampant, regardless alike of utility or economy, of means or ends. I was lead to these perhaps rather crude reflections on an examination of "Downing's Landscape Gardening," and "Cottage Residences," in which I find the above quotation. The beauty of Mr. DOWNING's works no one will doubt—the taste and genius displayed by the admired author no one will call in question; yet, how illy are they adapted to the wants of the American people—how poorly calculated to refine the tastes of the masses, or to give a touch of beauty to the thousands of buildings that are "going up" around us. Of how little service to the Farmer or Mechanic—the man of small means and refined taste, who wishes to make his home pleasant and attractive.
>
> From these works the man of wealth may learn how to expend his thousands in building beautiful and costly mansions. They may encourage a taste for display—for princely residences and retinues. They may cause aristocratic "*establishments*" to spring up over our land. The ghost of some ancient castle, or the effigy of some lordly manor-house, with its "*lodges*" and "*liveried*" attendants, may be made to supplant the plain republican "homestead"—European indolence and luxury to encroach upon American industry and simplicity; but, I doubt whether this will improve the taste or the morals, or add much to the peace and happiness of the American people. I doubt whether it will promote that EQUALITY of which we boast, or make us more worthy the respect and imitation of the world.
>
> In this country, thanks to our republican institutions and the smiles of a kind Providence, we have but few very rich, and few extremely poor. Here, with slight exceptions, all labor in some sphere, and all alike enjoy the necessaries and luxuries of life. And I regret, that under a plen of improving the "TASTE" of our people, Americans should be taught a love of pomp and show, and costly establishments. Taste may be purchased at too great an expense.
>
> That the taste of our people needs improving in respect to building and beautifying their homes, and that such improvement might be made consistent with simplicity and economy, no one can doubt. But a work to aid in its accomplishment, must, as far as possible, be within the means, and meet the wants of all, so that the man with four or five hundred dollars may find assistance in enabling him to make a home at once convenient and tasteful. I long for the time when not only the mansions of the rich, but the cottages of the poor, shall have the benefit of that "true taste which is good economy."
>
> The traveller in many parts of Europe, particularly in the agricultural districts of England, is enchanted with the beauty of its rural residences. And this delight is not caused by the elegance and splendor of the palaces of the "*gentry*" occasionally met with, but by the beautiful, though humble cottages of the poor, which, with the flowering hedges so common in England, gives to it the appearance of a vast garden, with here and there a summer-house, shaded by a cluster of overspreading trees, and covered with roses and honeysuckles.
>
> We need another work on COTTAGE RESIDENCES—a work for the million.

This was published in the September number for 1848. Mr. BARRY, on his way to Europe, called on Mr. DOWNING early the ensuing winter, and wrote us at the time, stating that Mr. D. was preparing a work on cheap cottage residences. We have since that time been anxiously awaiting the announcement of the book. A month or two since it was advertised in the eastern papers, and most of the agricultural papers acknowledged its receipt. Although the publishers did not furnish us with a copy, we took the first opportunity to procure one of the agent in this city, Mr. D. M. DEWEY. It is a large work of nearly 500 pages, beautifully printed on fine paper, and illustrated with over 300 engravings. It is divided into two parts. The *first* part, of about 250 pages, contains many useful suggestions on rural architecture, and about 20 designs for cottages and farm-houses—the lowest estimate $300, and the highest $5,000. It also contains various plans for barns, stables, yards, &c. There are over 100 engravings in this part.

The *second* part contains thirteen designs for a more expensive class of country houses, or what the author calls *villas*. The estimate for the cheapest plan is $3,500, and the highest $14,000.—And unless some of our readers may not know the difference between a *villa* and a *cottage*, we must give the author's own definitions. A cottage is "a dwelling so small that the household duties may all be performed by the family, or with the assistance of not more than one or two domestics." "A *villa* is a country house of larger accommodation, requiring the care of at least three or more servants." We think after this the all-important distinction will be perfectly understood, and settled beyond the reach of cavil; so if the daughters residing in the *villa*, with a due regard to their own health, and a desire to understand thoroughly the mysteries of housekeeping, undertake to do the work, and dispense with one or two of the servants, the house must no longer be called a *villa*, but a *cottage*. This part also contains various suggestions, enforced by illustrations, for decorating and furnishing the interior of houses to correspond with the style of the exterior. Also, plans for ventilating and warming.

The price of the book is $4; and this is so high that many, we fear, will be deterred from purchasing it, who might read it with great benefit. The publishers, however, Messrs. APPLETON & Co., of New York, in a note, inform us that they intend to publish the *first part* separate, which will reduce the price about one-half, we suppose. And this is the part most needed, and most useful. We hope the publishers will get up a fair readable edition which they can afford to sell for about $1.50, and then we have no doubt thousands of them will find their way into the hands of farmers and mechanics, who would never purchase the more expensive work. We would at all events urge those who have the least idea of building, to procure it; and we can assure them that it will in all probability save them more than ten-fold its cost. No one who passes through this section of country, can fail to witness the improvements of the last few years in the style of buildings. For this we are indebted in a very great degree to Mr. DOWNING. The publishers have kindly furnished us with several designs of cottages, one of which, with the author's description, will be found on the next page. We shall make further extracts from the book, in future numbers.

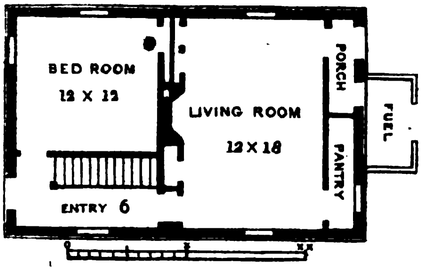


A DESIGN FOR A SMALL COTTAGE.

This simple design is given to show how a very small cottage, built of wood, may be made to look well at very trifling cost. In form, it is a mere parrallelogram, and while it is devoid of very strongly-marked architectural character, it combines something of home-like or domestic expression.

The picturesque character is partly owing to the bold shadows thrown by the projecting roof, and partly to rafter brackets and window hoods.

Let any one imagine this little cottage, with its roof cut off close to the eves, with the rafter brackets that support the projecting eves omitted, with the windows and door mere bare frames, and he has an example of how this same cottage would look as we commonly see it built; that is to say, without the the picturesqueness of wood clearly expressed by using it *boldly* (not neatly and carefully;) by a sense of something beyond mere utility, evinced in the pains taken to extend the roof more than is absolutely needful; and by raising the character of the windows and doors by placing hoods over their tops.



GROUND PLAN.

Accommodations.—The single apartment called the *living-room*, twelve by eighteen feet, is the common apartment, the kitchen, sitting-room, and parlor of this family; for it is intended for a family which "takes care of itself."

Opening the front door of this cottage, we see an entry six feet wide, which contains the stairs to the second floor. Underneath this stairs, another flight descends to the cellar.

On the left of the entry is a small bed-room twelve feet square. If this bedroom is used constantly, it would be better to have it communicate with the living-room by the door on the left of the chimney flue, which is now the closet door; and the arrangement, supposing this the bed-room in constant use, will give greater convenience and greater warmth in winter, since one fire will keep both rooms warm. If, on the contrary, it is only to be used occasionally, it would be better not to make it communicate. Indeed, with a little nicety of construction, there is space enough to retain a small closet for the living-room, and still have these two rooms connected.

The living-room is twelve by eighteen feet, a convenient size for daily use. It is lighted by a window on each side, and the chimney being nearly in the center of the house, no heat will be lost in winter. Near one corner of the opposite side of this room is a door opening into a small pantry which is lighted by a window, and at the opposite corner is another door opening into a narrow porch. We have cut off the passage, to form this small porch, in order to protect the back door, which opens into the main apartment of the family, from sudden draughts and cold blasts, a point most important in a northern climate, but too often neglected, to the serious discomfort of the inmates of small cottages. From this back porch another door will be seen opening into a small wood-house, so that fuel may be had without going into the open air. This wood-house is represented of small size, but it may be extended in depth several feet, if more room is wanted.

The second floor of this cottage contains two good sleeping rooms and two large closets. There are no fire places, but openings are left for stove-pipes in the flues, so that one or both rooms can be warmed.

There is a cellar under this cottage, and the outer cellar door should be provided just beneath the pantry window, if no more convenient position is found for it.

Cottages of this size usually have the stairs placed in the living-room, while the front door opens directly into one of the apartments. We think, in this respect, our plan has much greater comfort and convenience to recommend it.

CONSTRUCTION.—This cottage is to be built of wood, and the weather-boarding is to be put on in the *vertical manner*, with battens nailed over the joints.

In many parts of the country, where lumber planed by machinery is not easily obtained, we would use inch boards rough, or without planing, and put them on with square edges (not matched.) The batten completely covers the joint. This will cheapen the cottage considerably, if planing is to be done by hand; and for all outbuildings and cheap cottages, rough boarding, either painted and sanded, or washed over by the cottager himself with a cheap wash,* produces an effect even more satisfactory to the eye, because more rustic and picturesque than planed boards.

But steam-planed boards and plank are now offered so cheaply (that is to say, at only three or four dollars per thousand feet additional cost, being at the same time matched or tongued and grooved,) that they are now almost universally used for covering houses with verticle boarding.

Planed-and-matched flooring boards, one inch thick, and of good quality, can be had here for about seventeen dollars per thousand feet, or at Rochester or Bangor for fourteen dollars. The same boards *rough*, are worth on the Hudson fourteen dollars, and at Rochester eleven dollars; and as this cottage would require about fourteen hundred feet of weather-boarding, the economy in either of these localities by using rough boards, would be only about five dollars in the cost of the whole cottage; so that, under these circumstances, we should prefer the planed boards, because there is some additional warmth in the closer joints made by having the edges matched.

To make the cottage comfortable for the north, it should be *filled-in* with soft bricks, placed on edge, so as to allow the inside wall to be plastered on the bricks, as described in page 53. In the milder parts of the Union this will not be necessary, and, if omitted, the cost of the cottage will be lessened about twenty-five dollars—counting the price of soft bricks at three dollars per thousand.

The hood over the front door, as shown in the engraving, is a foot wide, and is supported by brackets more ornamental than those under the windows, to denote the greater importance of the principal entrance.

The roof of this cottage projects two feet, and, like all cheap cottages in this country, is covered with shingles. On the sides, the rafters are continued out to support the eves, and on the gables short pieces of joist are fitted in to support the sheathing of the roof, and to give unity of effect.

ESTIMATE.—On the Hudson, this cottage, with a cellar under the whole building, and filled-in with bricks on edge, will cost $400. An estimate from an experienced builder at Rochester places the cost there at $330.

PROF. JOHNSTON'S LECTURES.

WE have received from C. M. SAXTON, of New York, Publisher of Agricultural Books, a copy of Prof. Johnston's Lectures, delivered before the N. Y. State Agricultural Society, and the members of the Legislature. They are well printed and nicely bound, making a book of about 220 pages, which sells for seventy-five cents, bound in cloth, and fifty cents in paper. We are indebted to the publisher for the accompanying portrait.

James F W Johnston

The following facts were furnished by B. P. JOHNSON, Corresponding Secretary of the New York State Agricultural Society:

"Prof. JOHNSTON is a native, I understand, of Kilmarnock, in the east of Scotland, and was educated, it is believed, at the University of Glasgow. He pursued the study of chemistry with Berzelius, a distinguished Swedish chemist, and travelled very extensively, at an early period of his life, in the northern regions of Europe—in Sweden, Norway, Finland, and Russia—traversing the whole breadth of European Russia to the Wolga. Subsequently, he made himself familiar with the agriculture of other portions of Europe, by personal examination. At the foundation of Durham University, in England, he was appointed one of its teachers, and is now reader in chemistry and mineralogy in that distinguished institution. He was appointed Professor of the Agricultural Chemical Association, of the Highland and Agricultural Society of Scotland, in November, 1843, for five years, and during that period, his labors were productive of great good to the agricultural interests of Scotland.

"Professor JOHNSTON published his lectures on Agricultural Chemistry and Geology, in 1841, and an enlarged edition was published in 1847. In this country this work has passed through more than twenty editions, and it has also been republished on the continent of Europe, in French and German, and has secured the confidence of the farmers of this country more than any work published, so far as I am informed. He has published 'Contributions to Scientific Agriculture,' being a summary account of the proceedings and operations of the Agricultural Chemistry Association of Scotland, during his connection with it. This is a very valuable work, and deserving of extensive circulation in this country.

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* CHEAP WASH FOR COTTAGES OF WOOD.—Take a clean barrel that will hold water. Put in it half a bushel of fresh quick-lime, and slake it by pouring over it boiling water sufficient to cover it 4 or 5 inches deep, and stirring it till slaked. When quite slaked, dissolve in water and add 2 lbs. of sulphate of zinc (white vitriol.) which in a few weeks will cause the white-wash to harden on the wood work. Add sufficient water to bring it to the consistence of thick white-wash. To make the above wash a pleasing cream color, add 4 lbs. yellow ochre. For a fawn color, take 4 lbs umber, 1 lb. Indian red, and ½ lb. lampblack. (Lampblack, when mixed with water colors, should first be thoroughly dissolved in alcohol.) To make the wash grey or stone color, add 1 lb raw umber and 2 lbs. lampblack. The color may be put on with a white-wash brush

"Professor JOHNSTON prepared, for schools, a Catechism on Chemistry and Geology, which has been very extensively introduced into the primary schools in England, Scotland, and Ireland, and has passed through twenty-two editions there. It has been republished in France, and, it is believed, in several other countries of Europe. An edition has been published in this country, with an introduction by Prof. JOHN P. NORTON, of Yale College, who pursued his studies a portion of his time with Prof. JOHNSTON, while engaged in the Agricultural Chemical Association of Scotland. This is a work of great merit, and has been productive of the most favorable results wherever introduced.

"Professor JOHNSTON was invited by the New York State Agricultural Society, in 1848, to visit this country, and deliver a course of lectures before the Society, and such other associations as he might be enabled to address. His connection with the Chemical Association not being concluded, the invitation was then declined. In 1849 the invitation was renewed, and he appeared before an American audience, for the first time, at the Annual Fair of the Society, at Syracuse, in September. His address upon that occasion was upon the agriculture of Europe, and was listened to with great interest by an immense auditory. In January, 1850, he delivered the course of lectures which are now presented, in separate form, before the Society and members of the Legislature. He subsequently delivered a course of lectures before the Lowell Institute, Boston; also before the Smithsonian Institute, at Washington, and two lectures before the American Institute of New York. He made an agricultural examination and survey of the Province of New Brunswick, which has been published by the Provincial Legislature, and which is very highly commended by gentlemen of that province.

"Professor JOHNSTON is in the meridian of life and of usefulness; and, should his life be spared, as we trust it may be for years, from his acknowledged industry, his habits of thorough investigation, his ardent desire to contribute to the advancement of science, his labors will yet, we doubt not, result in great good to the cause to which he devotes the entire energies of his vigorous intellect.

"The agriculturists of America are under great obligations to him for the course of lectures which are about to be presented to them, and we feel assured that they will prove of unspeakable advantage to the entire agricultural interest of our country.

"Professor JOHNSTON is a Fellow of the Royal Society of England, Honorary Member of the Royal Agricultural Society of England, Honorary Member of the New York State Agricultural Society, and of several of the European scientific agricultural associations."

BEES.—No. 5.

THE various styles of hives being too numerous for an extended notice on each, I will merely say, that all hives not conforming in size to such as I have previously stated to be of the proper dimensions, (containing about 1800 cubic inches in the clear,) are unsuited for the most successful bee-culture; and any shape, except such as are as much or more in breadth as in depth, are not susceptible of producing the greatest quantity of surplus, or box honey. No man can ever, in my opinion, invent or construct a hive in which bees will store up more honey than in ordinary hives, only so far as he approximates to the true natural *size* of the hive, and its proper *shape*, whereby the bees labor to the best advantage. Hives can be *simplified*, and new and important modes of *ventilation* adapted, rendering them highly valuable over common boxes; and this is all that I claim to have done in that of my own construction.

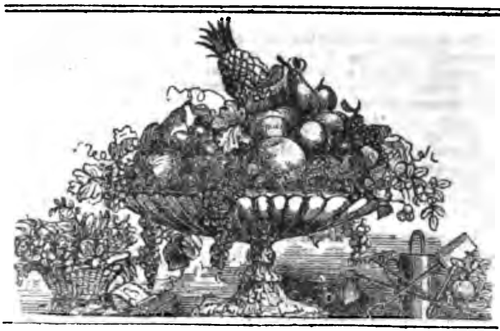
There is, however, one pretended discovery in the management of bees, that I can not suffer to pass without a notice. I refer to *Gilmore's* plan of placing the whole apiary into one domicil in common; then feeding them on some compound that only costs, as he says, about *three* cents per pound; from which the bees rapidly make the most pure honey, even to the extent of "1200 pounds of *box* honey by only *six* original stocks"! I consider this the *ne plus ultra* of humbugs, and it deserves an extended notice for the public good, and in my next I will try and do it justice.

In answer to "J. D. C.," who asks how my theory of the queen's taking aerial flights for the purpose of coition with the drones, can be reconciled with his statements, I would observe, that I think he can not be *positive*, at this late day, whether the queen referred to as being found on the ground, was with a *first* or a *second* swarm. He says, "it being a second swarm;" but how is it possible that he can now recollect a circumstance of so trivial and unimportant (at that time) a matter? It was, he says, "*some few years ago*," and my theory appears to be entirely new to him now. The query is, how does he happen to recollect that it was a *second* swarm? What cause would he have for noticing whether it was a first or a second swarm, even at the time it happened? I do not wish to discredit his statements; but it is really very singular that he should know that it was a *second* swarm at the present time. It is no easy thing to be *positive* in such things, even at the time of swarming. How many swarms issue and return to the parent stock, unknown to the apiarian.

He says further: "When my bees show signs of *disquiet* on hiving them, I catch the queen, (or queens, if more than one,) and cut one wing, and then return it to its swarm." He does not say whether his "disquiet" bees were first or after swarms, which is important in this case. My experience in bee-culture has always shown, that it is the *quiet* swarms that need attention, as there is always danger where the bees refuse to labor, and where they remain inactive; but never from an active swarm. If "J. D. C." will cut the wing of a *young*, *virgin* queen, and find the result he speaks of, then I will admit that my theory (not mine alone,) is unsound. Let us have a fair trial next season, friend "J. D. C.," and please be very particular that you do not operate on *old* queens instead of *young* ones.

T. B. MINER,
Author of the American Bee-Keeper's Manual.

Clinton, Oneida Co., N. Y., 1850.



Horticultural Department.

EDITED BY P. BARRY.

HORTICULTURAL EXHIBITIONS

We have to devote a large portion of our space, this month, to a notice of the numerous interesting exhibitions that have been held in various parts of the country. Those who are interested in the progress of horticulture will not regret this; for it is both profitable and interesting to know what fine things and what improvements these annual displays have brought out, and what are the particular products or varieties in which different sections of the country excel. The extent of our country, and the variety of its soils and productions, are truly wonderful. We have never so fully realized these matters as we have this season. Our visit to Cincinnati, and meeting there fellow laborers from the most distant regions, thousands of miles apart—the facts we have gathered from them, and an examination of their productions, have opened our eyes to many points that before we had either considered lightly or not considered at all. To be able to say what varieties of fruit will or will not succeed in this or that section of this extensive country, requires such a thorough knowledge of soil, climate, &c., as no individual yet possesses, and which must be gathered from actual experience. These great exhibitions that bring together people and productions from all parts, will afford the best means of acquiring this knowledge.

THE ALBANY AND RENSSELAER HORT. SOCIETY.

We are indebted to the Secretary of this Society, for a copy of the report of its annual exhibition, held on the 18th of September. This Society is one of the most efficient and successful of any in our State. Every succeeding show is an improvement on its predecessor; and this speaks well for the horticultural skill and zeal, and particularly the *public spiritedness*, of the citizens of Albany and Troy, and their respective neighborhoods. Of fruits, the display appears to have been varied and fine. Messrs. Wilson & Co., nurserymen, exhibited 53 varieties of Pears; Dr. H. Wendell, 34; and V. P. Douw, Esq., 18. Isaac Dennison, Esq., presented 22 varieties of plums. Robt. Manning, Esq., of Salem, Mass., exhibited specimens of the *Wendell* pear, a new seedling of the late Dr. Van Mons.

We extract, below, the premiums awarded for fruits and flowers, in order to show the best articles in these departments. The committees very properly in most cases give the names of the varieties to which they gave premiums.

FRUITS.

Apples.—For the best and most extensive collection, 32 varieties, E. P. Prentice, $3.

For the 2d best and most extensive collection, 21 varieties, Wilson, Thorburn & Teller, $2.

For the best one variety exhibited, Rhode Island Greening, M. V. B. Schryver, of Schodac, 1.

Pears.—For the best and most extensive collection, 53 varieties, Wilson, Thorburn & Teller, 3.

For the 2d best and 2d most extensive collection, 34 varieties. Dr. Herman Wendell, 2.

For the best six varieties—White Doyenne, Seckell, Flemish Beauty, Beurre Bosc, Louise Bonne de Jersey, and Beurre D'Aremburgh—to V. P. Douw, 2.

For the best one variety, to Wilson, Thorburn & Teller—White Doyenne—1.

[The rule required that six specimens should be shown; many others exhibited very fine specimens of this variety, but not in sufficient numbers to enable them to compete.]

Peaches.—For the best and most extensive collection, to Dr. Alden March, for 12 varieties, 3.

For 2d best and 2d most extensive collection, to Wilson, Thorburn & Teller, for 8 varieties, 2

For best 3 varieties, to E. Dorr, for President, Morris Red Rareripe, and Crawford's Late, 1.

For best one variety, to L. Menand for George IV., 1.

Plums.—For the best and most extensive collection, to Isaac Denniston, 28 varieties, 3.

For the 2d best and 2d most extensive collection, to E. Dorr, 12 varieties, 2

For the best one variety—six specimens exhibited—to Isaac Denniston, for Reine Claude, 1.

Nectarines.—For the best one variety—six specimens to be exhibited—to V. P. Douw, for Newington, 1.

[The other premiums offered were not competed for.]

Grapes.—*Foreign*—For the best two varieties exhibited—three of each variety—to V. P. Douw, for Golden Chassellas and Miller's Burgundy.

[The other premiums offered were not competed for.]

Grapes.—*Native*—For the best collection, to E. Dorr, for 4 varieties, 3.

For the best two varieties, to Erastus Pease, for Catawbas and Isabellas, 2.

Water Melons.—For the best two varieties, to V. P. Douw, for Joppa and Spanish, 2.

The others offered, were not considered worthy of premium.

Musk Melons.—For the best one variety, L. Menand, for Green Citrons, 1.

The other varieties offered were not deemed worthy of premiums.

HERMAN WENDELL, Chairman.

FLOWERS.

Dahlias.—For the best display, to Norman Briggs, of Schaghticoke, $3.

For the best 12 dissimilar blooms, to Norman Briggs, for Constantia, Lady Sale, Viscount Ressigneur, Admiral Stopford, McKenzie's Perfection, Miss Chaplin, Bragg's Arethusa, Caleb Cope, Rainbow, Ultimatum, Madam Zahler, and Toison D'Or, 2.

For the best six dissimilar blooms, to Norman Briggs, for Toison D'Or, Arethusa, Madam Zahler, Rainbow, Lady Sale, and Princess Radzville, 1.

For the best flower, specimen bloom, to James Wilson, for Princess Radzville, 1.

Roses.—For the best ten varieties, the premium is awarded to L. Menand, for La Reine, Souvenier de Malmaison, Bougere, Eugene Beauharnois, Aimee Vibert, Geanie des Batailles, Devoniensis, Marquis Bocella, Hermosa and Chromatella, 2.

Verbenas.—For the best 12 varieties, the premium was awarded to Norman Briggs, of Schaghticoke, for Robinson's Defiance, Eclipse, Roseum Superbum, Queen, Polkii, Beauty Supreme, Susette, Buist's New Blue, Fire Ball, Variegatta, Monk's Purple and Virginal, 2.

For the best six varieties, the premium is awarded to D. Thos. Vail, for Robinson's Defiance, Beauty Supreme, Polkii, Queen, Eclipse and Susette, 1.

For the best seedling, never before exhibited, the premium is awarded to N. Tillman, from Dr. Wendell's Garden. 1.

Phloxes.—For the best ten varieties, the premium is awarded to N. Tillman, from Dr. Wendell's garden, for Reine de Jour, Princess Marianne, Anais Chauviere, Blanc de Neuilly, Dodoniac, Maseppa, Fleur de Marie, Rosea Superba, Auguste, and Almerm. 2.

For the best seedling, never before exhibited, to James Wilson, 1.

Asters.—For the best display, the premium is awarded to Wm. Newcomb, of Pittstown, 2.

For the 2d best, to James Wilson, of Albany, 1.

The committee beg leave to add, that great praise is due to the several gentlemen who brought their flowers in such perfection to the exhibition, from distant places, as they added largely to the splendor of the display.

They also wish to suggest to contributors that hereafter, correct lists of all articles entered for exhibition, be handed in early to the clerks, and too, that it be minutely specified in each list, and on the several articles exhibited, what particular class of prizes they are to compete for; attention to these matters on the part of exhibitors, will materially lessen the duties of committees and enable them to give satisfaction to all.

SANFORD HOWARD, Chairman.

EXHIBITION OF THE GENESEE VALLEY HORTICULTURAL SOCIETY.

This exhibition was held in Corinthian Hall, on the 26th of September, in connection with the Horticultural, Dairy, and Domestic Manufacture departments of the Monroe County Agricultural Fair. The display of fruits, flowers, and vegetables, was very good—superior to any similar show we have seen in Rochester. The fruits were remarkably select, the specimens fine, and, with a few exceptions, correctly named. It is very grattifying to see so much attention given to this latter point. This is one of the results of our Society and its exhibitions. Mr. Hayward, of Brighton; Mr. Lay, of Greece; Mr. H. N. Langworthy, of Irondequoit; L. B. Langworthy, of Greece; John Donnelan, of Greece; and several others, presented beautiful collections of apples—Mr. Donnelan's, in particular, was remarkably fine. S. H. Ainsworth, of West Bloomfield, presented a large collection of apples, pears, and plums. Messrs. Bissel & Hooker presented a collection of choice pears, including some rare varieties; and some four or five varieties of foreign grapes, from their vinery. The Black Hamburgs were especially good—bunches large, well colored and ripened. They attracted much attention. Mr. H. N. Langworthy exhibited good specimens of Seckel, Swan's Orange, and White Doyenne pears, and fine specimens of the Melon apple. Chas. Powis, of Greece, presented a handsome collection of apples and pears; Ellwanger & Barry, select varieties of apples and pears. Of peaches, nothing worth naming was presented, and Grapes were not as fine as usual.

In the Floral department, dahlias were the most attractive articles. Of these the display was decidedly superior to any we have before seen here. It imparted whatever of brilliancy there was in the exhibition, and will no doubt be the means of drawing increased attention to this beautiful autumn flower. Messrs. C. J. Ryan & Co., of Charlotte, made an extensive and beautiful display—their varieties were good, and the specimens tastefully shown. Messrs. King & Dawe, and S. Moulson, of Rochester; Chas. Powis, of Greece; and Ellwanger & Barry, contributed handsome collections. A few amateurs, young ladies in particular, made some pretty contributions in the way of dahlias and other cut flowers.

The vegetables were exceedingly fine. We noticed several fine samples of Lima beans; and table beets, onions, cauliflowers, &c., grown in perfection. Mr. Crosman, and Mr. Kem, and Mr. Mulholland of Brighton, and Mr. Donnelan of Greece, were the principal contributors in this department, and deserve great credit for their excellent productions. We annex a list of the premiums awarded:

FRUITS.—AMATEURS' LIST.

Premium List of Apples.—Robert H. Brown, Greece, for greatest number (39) of varieties, 1st premium, $3; N. Hayward, Brighton, (35 varieties) 2d do, 2; F. W. Lay, (38 varieties) 3d do., 1.—For best six varieties—Baldwin, Golden Russet, Northern Spy, Esopus Spitzenburg, Norton's Melon, Green Sweeting—H. N. Langworthy, 1st premium, 2; L. B. Langworthy, six varieties—Newtown Pippin, Fameuse, Green Sweeting, Rhode Island Greening, Baldwin, St. Lawrence—2d premium, 1.

Peaches.—N. Hayward, Brighton, 1st premium, $2; Mr. Armitage, 2d do., 50c.

Quinces.—J. Bunker, 1st premium, $1; N. Hayward, 2d do., 50c.

Grapes.—Isaiah Bunker, best Isabella, $2; M. G. Warner, 2d do., 1. M. G. Warner, best Catawba, 2.

Nectarines.—Jas. Vick, jr., all exhibited, premium, 50c.

Pears.—H. N. Langworthy, best pears, 2. Beautiful Virgalieu and Steven's Genesee Pears were presented by J. D. Robertson.

FRUITS.—NURSERYMEN'S LIST.

Apples.—Mr. S. H. Ainsworth, greatest variety, 51, 1st premium; John Donnelan, 2d do.; Chas. Powis, 3d do.

Pears.—Bissell & Hooker, best pears, 1st premium; Mr. Ainsworth, 2d do.; Chas. Powis, 3d do.

Grapes.—Bissell & Hooker, [grown under glass] Black Hamburgh and White Golden Chassellas, premium, 3. Greatest number, Mr. Ainsworth, 2d premium.

Plums.—Mr. Ainsworth, only exhibitor, 14 varieties, premium

Quinces.—Zera Burr, 1st premium.

Ellwanger & Barry, and Messrs. Ryan & Co., presented apples and pears in abundance for exhibition, but not for competition.

The amount of premiums for the above list will be declared hereafter. P. BARRY, Chairman.

FLOWERS.

Amateurs.—Miss Sarah M. Hayward, one very large table bouquet, $1. Miss C. W. Cheney, best display of dahlias, 5. Miss C. W. Cheney, best round hand bouquet, 1. Mrs. A. Fitch, Riga, 2 baskets of flowers, 1. James Vick, floral ornament of German Asters, 1. Priscilla P. Chappel, 2 flat bouquets, 1. Mrs. S. G. Crane, 2 best round bouquets, 2. John Rapalje exhibited 2 fine varieties of flowers, and Mrs. Alfred Fitch some very fine balsams.

Nurserymen.—King & Dawe, greenhouse plants—2d best display during the season, $5. Roses, best display, 3; Verbenas, do. do., Diploma; Pansies, do do. do; Phloxes, do. do. do.; Dahlias, best 12 varities, do. Besides the above, Messrs. K. & D. exhibited 4 very fine bouquets, and a variety of other flowers. C. J. Ryan & Co., Dahlias, best display, diploma; bouquets, 2d best, table, 2; do. do., round hand, 1; do., best flat, 2 S. Moulson exhibited a fine collection of Dahlias. Chas. Powis, Dahlias, 12 very fine varieties. Ellwanger & Barry, Dahlias, 44 of the best and newest varieties; Roses, 20 var., mostly Hybrid Perpetual A fine collection of Pansies; do. of Verbenas; do. of Phloxes; do. of Asters; do. of German Stocks; do. of Altheas; Bouquets, 2 round hand.

Note.—Mr. Ellwanger being chairman, Messrs. E. & B. did not offer anything for competition. None of the premiums awarded to E. & B. at the last June exhibition, will be drawn from the Society. GEO. ELLWANGER, Chairman.

THE ANNUAL EXHIBITION OF THE HORTICULTURAL SOCIETY OF CINCINNATI.

The brilliancy of this exhibition took us quite by surprize. We expected something fine—we were aware that the most liberal arrangements had been made, and that there was abundant material in that city and vicinity, for a grand display; still, as we have already said, it took us completely by surprise, so admirable was it in all its parts. We felt fully compensated for our journey, with the gratification it alone afforded us. We have seen some of the best shows that Philadelphia or Boston has produced; and although this was defective in the display of pears and foreign grapes, yet, as a whole, considering the articles exhibited, the arrangement, &c., we consider Cincinnati up to, if not a little ahead of, either: and this is saying a good deal.

The Show was held in a splendid hall nearly one hundred feet long and fifty feet wide. On either side was a table, the whole length covered with fruits—not *little, shabby, half grown specimens, one of a kind*—but superb dishes of those magnificent golden and crimson fruits of the west—Fall Pippins as large as a man's head, and peaches that would almost weigh a pound. What a display of fruits! The "Queen City" and the "Mighty West" might well be proud of it. Then, in the center of the room were three tables, with a walk between each, filled with flowers, flowering plants, and floral designs. The center table was appropriated to the design and taller plants. At the end of this table, just opposite the entrance, was a decorated arch, supported by two columns, mossed and ornamented with flowers, and with nuts of the Buckeye. The words "Buckeye welcome" were tastefully wrought on the arch, with the nuts, and on the top was the American eagle. This tasteful object was the handiwork of the Misses Orange, and sold, we understood, for the sum of $50, at the close of the exhibition. There were many other very beautiful designs, by Mrs. Wm. Heaver and others. At the farther end of the room we noticed a villa residence in miniature, the grounds all laid out and planted with much skill and taste; and, just opposite, a very pretty design of a flower garden, laid out and planted. The two side tables were occupied with smaller plants; dahlias, &c. Messrs. JACKSON, HEAVER, SAYERS, and others, exhibited pot plants, many of which were new and rare, grown in the best manner. Indeed, we think they would do credit even to a Chiswick fete. A better collection of pot plants, and better specimens, have, we are very confident, never been exhibited together before in this country.

The liberal management of the Society brought out this grand display, and it was well rewarded. We were glad to see the great hall filled — thronged — evening after evening, and every visiter go away delighted. *One thousand dollars* were received at the door, and six hundred dollars received at the sale, making $1,600 receipts. We congratulate the officers and members of this very excellent Society on the success which has crowned their efforts on this occasion. It affords them great encouragement for the future.

THE POMOLOGICAL CONGRESS AT CINCINNATI.

THIS meeting was held in connection with the Ohio State Fair, on the 3d and 4th of October. Its sittings were held in one of the tents on the show grounds. Dr. W. D. BRINKLE, of Philadelphia, presided. The meeting was pretty well attended by the fruit-growers and nurserymen of the west. Ohio, Indiana, Kentucky, Missouri, Illinois, Iowa, &c., were all represented to some extent. New York was represented by Messrs. CHAS. DOWNING and A. SAUL, of Newburgh, and a very respectable delegation from Buffalo, consisting of Col. HODGE, LEWIS F. ALLEN, Prof. COPPOCK, Messrs. EATON, MCARTHUR, and some others. The Eastern States had not a delegate present. We regretted very much the absence of such men as Col. WILDER, SAMUEL WALKER, C. M. HOVEY, and others, who have always so ably represented New England at these meetings. A. J. DOWNING, Esq., the chairman of the general fruit committee, was also absent; so that, with a dozen exceptions, the meeting was composed of western men who had not previously attended the meetings of the Congress. Notwithstanding these drawbacks, the meeting was interesting, at least it was so to us. We had the pleasure of making the acquaintance of the most intelligent cultivators, and the best fruits of the west; and this was more particularly what we wanted. We had also an opportunity of learning many important facts, in regard to western and south-western soils, climate, and culture, that we were before ignorant of. The western people benefitted in the same way, no doubt. A committee on synonyms was appointed at an early stage of the proceedings, and spent a whole day in examining and comparing specimens, and correcting errors. This committee was appointed at the suggestion of the President, and the labor it performed was, we think, quite as important to the cause of pomology as anything else that was done. Col. WILDER sent a fine collection of specimens of pears, and a letter apologizing for his unavoidable absence.

The Congress was called to be held in connection with the Horticultural Society of Cincinnati, and Mr. ERNST, the President of that Society, had provided a suitable room in town for its use, but at a preliminary meeting it was decided to assemble out on the show ground, in a tent, in connection with the Agricultural Society. This step, we believe, though well meant by its advocates, had a decidedly injurious effect on the proceedings of the pomological meeting. The show grounds were three or four miles from town, and the day was consequently far advanced before people could get out there. Then there were no seats, table, or other other suitable arrangements for displaying fruit and transacting business—these matters were all to be prepared, and when prepared, were far from being convenient or suitable. Then the evenings that might have been profitably spent in a room in town, were lost. The Cincinnati Horticultural Society was holding its exibition at the same time, and most of the gentlemen of Cincinnati, who are interested in pomology, and would have been of great service in the convention, could not leave their posts in town at the exibition room, to go out four miles to the show grounds. Their services were therefore lost entirely. We shall, by and by, as we get leisure, refer in a more minute way to the proceedings of the Convention.

A FEW HINTS FOR NOVEMBER.

TREES transplanted recently should be carefully staked if likely, from size or exposure, to be blown around by the winds; and all should be carefully mulched. Common rough manure from the barn-yard, is as good as anything. Staking and mulching are the great preservatives of newly planted trees, either in summer or autumn. Trees planted last spring even, would be greatly benefitted by a mulching, and especially where they have not grown freely, and taken deep root in the ground. Soft-wooded trees, such as the Pawlonia, some Magnolias, &c., which, though perfectly hardy after one or two seasons' growth, are likely to be winter-killed, if quite exposed, should have a thin sheathing of straw for the first winter; and that, even if planted last spring. This remark applies to both deciduous and evergreen trees. Rare evergreens, even the perfectly hardy ones, should invariably have a slight protection the first winter.

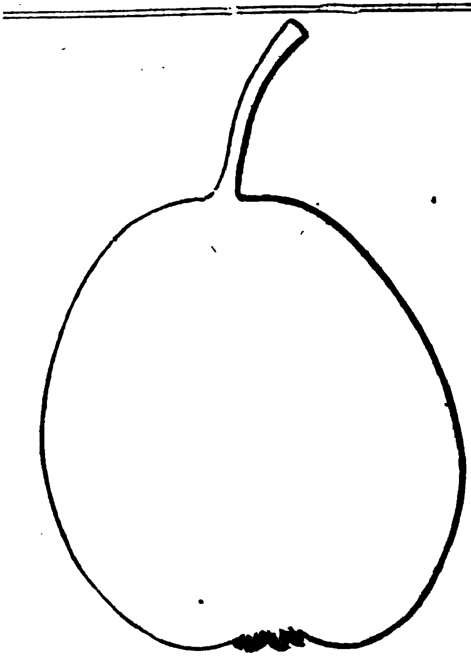
Raspberries, to ensure a certain crop next season, should be protected. The practice of the great market-growers near New-York, is to lay down the canes and cover very lightly with earth. Straw or boughs of trees will answer; but there is a standing objection to all such things, and that is, they attract vermin.

Strawberry beds, and particularly those recently planted, should be protected to prevent being drawn out, as they certainly will be if left exposed, unless the ground should be covered with snow all winter, which can not be expected, in many places.

Half hardy plants, such as monthly roses, carnations, &c., may be wintered well by planting them compactly in a bed, and enclosing them with a frame like that for a hot-bed, and covering it with boards. These can be removed at mild intervals during winter, and air be given, to prevent mold, &c.

Dahlia roots are frequently lost by being put away in a cellar, *green* and *wet*. The roots should be well dried in the sun, until there is no apparent moisture about them, and then be placed on dry shelves or be put away in sand, where they will not freeze. With this precaution, the roots are as easily wintered as potatoes.

Field Mice are often very destructive to orchard and garden trees. One of the greatest preventives, is to clear up thoroughly all brush and rubbish that may have accumulated during summer, remove all grass, weeds, &c., that the mice might burrow and work under during winter.



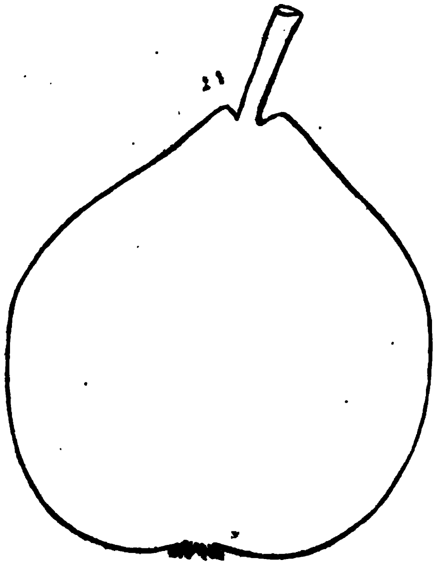
THE BLOODGOOD PEAR.

This is one of the most popular of all our summer pears, and is, on the whole, perhaps one of the best. We bring it forward at this time, because we have this season had a full crop for the first time, on a standard tree about twelve years old; and we have also had a crop from a top-grafted tree of five years growth. In both cases the fruit has been fine, buttery, melting, and rich—approaching more nearly, in texture and flavor, a fine autumn variety, than any of the summer pears we have had, excepting *Osband's Summer*. In appearance it is not attractive—dull, and somewhat russety. If it had the clear colors of the *Osband's Summer*, or the *Madeline*, it would tell greatly in its favor in the markets, where the eye must be pleased. The tree is erect and regular in its habit, of moderate vigor, with reddish brown shoots. It succeeds finely on the quince, making fine branchy trees three to five feet in height the first season from bud. It will make a fine garden pyramid.

It is unnecessary to give a minute description of it. The outline conveys a fair idea of its average size and shape.

Nicholas Longworth, of Cincinnati.—To this gentleman more than to any other, is this country indebted for whatever progress it has made in the vineyard culture of the grape; and it is pleasant to see that the people of his own city and State appreciate his labor. During the State Fair, the Board of Agriculture presented him with "a beautiful and highly finished silver goblet, for his successful culture of the grape;" and at the same time, Mr. Ernst, President of the Horticultural Society, presented him with an elaborate and elegantly wrought silver vase, engraved with the following inscription: "Presented through the Cincinnati Horticultural Society, to Nicholas Longworth, for his eminent exertions in Horticulture, by a friend of the cause."

The horticultural doings of Cincinnati, this season, have been every way worthy of the Queen City.



THE SUMMER FRANCREAL PEAR.

We think that this pear is by no means so popular as it ought to be. Without being decidedly *first rate* in flavor, it has many properties that entitle it to a place among the most valuable of our summer varieties. The tree is remarkably hardy and vigorous. During all the blight prevalence in this region, we do not remember having seen a tree or limb affected by it. It is upright, stout, branching, and regular in habit. On either pear or quince it will make a beautiful pyramid, with very little care. Then it bears quite young, and most abundantly. A small tree, about four feet high, on our grounds, on quince stock, bore full half a bushel this year. The outline here given is the average size on pear stock; but on quince stocks, if the trees be not overloaded, they will be fully twice as large. Like all other summer pears, it requires house-ripening. Indeed, if allowed to ripen on the tree, it is worthless. We pick them when fully grown, and as they begin to change color. They then become melting, juicy, and fine, with a refreshing vinous flavor. The fruit is very distinct in shape—roundish, tapering to the stalk and eye, and of a greenish yellow color. The tree also is very distinct, so as easily to be recognized among hundreds of sorts, either with or without foliage. The leaves are cottony and gray, folded back, and have a large, light colored midrib. The wood is stout, brown colored, with gray specks, and the young shoots are quite woolly and gray.

A Fruit Ladder.—*Mr. Barry:*—I will give you a description of a ladder for gathering fruit, which I saw in Beaver county four years since, and which I have not seen in my travels in any other place. Get a straight pole of the desired length, say 25 feet for a long ladder, and 4 or 4½ inches at the butt end after the bark is off, (basswood I prefer, as combining lightness and strength;) saw it up through the center 7 or 8 feet; spread it equally to each side to sufficient distance; bore with a seven-eighths auger for rungs or pins, which should be of tough, durable timber. Such a ladder will stand steady on almost any position of the ground or tree. Thos. M'C[illegible]land.—*Mill Creek, Erie Co., Pa.*, 1850.

THE NORTHERN SPY APPLE.

A few days ago we were invited to ride out to Mr. Hand's, of Mendon, in this county, to see his Northern Spy apple trees before the crops were gathered, and we can safely say that we have never been more gratified with any thing in the way of bearing fruit trees. A great deal has been said about the peculiar tendency of this variety to produce a large proportion of small, inferior, or unmarketable fruit, and we only wish that those who entertain such an opinion of it, could have been with us and seen Mr. Hand's, trees. A more abundant, uniform, and *perfect* crop, we have never seen, of *any* variety. Twenty-four trees, we believe, in one row, some sixteen years old, with straight trunks sixteen feet high and perhaps a foot in diameter, with lofty symmetrical heads loaded in every part, the boughs bending almost to the ground, with large and beautiful crimson fruit, is surely a pleasing sight. Of small, unmarketable fruit we could see *none*. Mr. Hand has probably one hundred and fifty barrels, and has sold most of them at $2.50 per barrel, while other varieties sell for $1.25 to $1.50.

It has been said that the Northern Spy requires free pruning and high culture; and there is no doubt that it will be much better with such treatment, than if neglected. So will all other varieties, and especially those that mature so late in the season. We notice that Mr. Hand's trees are in excellent condition. He has pruned out the centre, so that it is quite open, thus giving the sunlight free access to all parts of the trees; but the trees stand too close — the lower branches of the adjoining trees are already meeting and coming in contact with each other, so that the fruit on them are considerably shaded, and consequently less highly colored than those on the top branches, and they will not be so finely flavored. Mr. Hand pointed out a tree that stood in an open space, and on this every specimen was highly colored. It is false economy to plant apple trees too closely. We allude to this fruit now, for the benefit of distant cultivators who remain. in doubt as to its value as an orchard variety.

ACKNOWLEDGEMENTS.

We have the pleasure of acknowledging the receipt of the following articles:

— From Jesse Storrs, Esq., of Marathon, N. Y., a basket of the *Munson Sweet* apple—very beautiful and fine. We shall take an early opportunity of saying something of the merits of this fruit.

— From A. Mackie, Esq., of Clyde, N. Y., fine specimens of his *Clyde Beauty* apple, and other varieties.

— From Jas. H. Watts, Esq., specimens of the *Father* apple, with an account of its origin, &c., from S. H. Ainsworth, Esq., of West Bloomfield, N. Y. This is a most delicious fruit, but small and indifferent in appearance.—Also, *Swan's Orange* pear.

— From M. A. Norton, Esq., of Victor, N. Y., for specimens of the "Honey Sweet" apple, ripening from Sept. to Nov., and a most profuse bearer. A fair showy apple, but of inferior flavor. This is not the *Honey Sweet* of the east.

— From W. B. Pratt, of Prattsburgh, N. Y., specimens of the *Dyer*, or *Pomme Royal* apple, under the name of "Pratt's Fall apple." This we consider decidedly *the best apple of its season.* Sept.

— From Jesse Wilbur, of Avon, *White Doyenne* pears, and several varieties of apples.

— From Thomas Roe, Gates, a small seedling russet apple of fair quality; and a large, showy, redapple, also said to be a seedling — rather inferior in flavor.

EXHIBITION OF WINTER FRUITS.

It is the intention of the Genesee Valley Hort. Society to hold a grand exibition of winter fruits, in the month of December or January next, of which due notice will be given in the next number of the Farmer. We now request fruit-growers, amateurs, nurserymen, &c., to prepare specimens of apples, pears, grapes, &c., for presentation. Our autumn shows afford little opportunity for comparing the merits of winter fruits, and this show may be of great value to all engaged more or less in fruit culture. If cultivators would take the trouble to accompany their specimens with notes respecting the soil and situation of the ground on which the fruits have been grown, it would greatly enhance the value of the exhibition; for every day's experience teaches us that in certain soils some varieties will attain their highest perfection, while others will fail entirely. Facts on such points as these must be industriously collected.

* * *

The Season.—The first frost that left its blackening marks on vegetation, occurred here on the night of the 8th of October, and then only the most tender leaves were killed in low situations. On high grounds, our dahlias are yet (Oct. 14) in perfection, and roses in bloom have not been affected in any part of our grounds; but the weather has been cool enough since the middle of September, to arrest vegetation, so that we have been able to transplant trees since the 6th of October.

We are happy to note a growing disposition, in the community generally, to take advantage of our fine autumns for forwarding the improvements in their gardens and grounds. We have glorious autumns here, when it is pleasant to be out of doors; and labor then is much more abundant and cheap than in spring.

THE ANALOGY BETWEEN ANIMAL AND VEGETABLE LIFE.—No. 2.

Plants derive all their sustenance from the earth and the air, on the spot where they are placed; and for this reason are not provided, like animals, with a set of moveable levers or bones with muscles attached thereto, to carry them from place to place in search of food. And yet there are some plants, familiarly called *runners*, as the *strawberry* for instance, which seem fairly entitled to the character of locomotive or migratory. If a person were to plant the *orchis* or *devil's-bit* in his garden, and search for it in the same place six or eight years after, he would probably find it several hundred yards from the spot where he had planted it. Such plants grow from a new bulb or radicle while the old root dies away. Thus we may conclude the living principle has quitted an old, ruined, and decayed mansion, and taken possession of a new one.

The fluid that circulates in the vessels of a tree, or the *sap*, is the blood of plants, and is like that of animals, of an extremely compound character. In both instances, from this common current of vitality are secreted a variety of substances of different and often opposite powers and qualities — substances nutritive, medicinal, or destructive. The flesh of the viper is healthful, while his poison is deadly; the leaves of the Indian *cassara* are poisonous, but its root is eaten as ordinary food. Every one is familiar with the fact that some of our demesticated animals eat with impunity vegetables that would be poisonous to others. F.

Ladies' Department.

A GOOD GARDEN ESSENTIAL TO GOOD LIVING.

In the Genesee Farmer of last year, I noticed an article in relation to the advantages of a good garden, that particularly attracted my attention. The first paragraph was as follows :

> No one can be truly said to LIVE who has not a GARDEN. None but those who have enjoyed it can appreciate the satisfaction—the luxury—of sitting down to a table spread with the fruit of one's own planting and culture. A bunch of radishes—a few heads of lettuce—taken from the garden of a summer's morning for breakfast; or a mess of green peas or sweet corn, is quite a different affair from the same articles brought in large quantites from market in a *dying condition*, to be put away in the cellar for use. And a plate of strawberries or raspberries lose none of their peculiar flavor by passing directly from the *border* to the *cream* without being jolted about in baskets until they have lost all form and comeliness. And yet, how many in the smaller cities and villages of our country, possessing every facility for a good garden, either through indolence or ignorance are deprived of this source of comfort? And how many farmers, with enough land lying waste to furnish them with most of the luxuries of life, are content to plod on in the even tenor of their way, never raising their tastes above the "*pork and beans*" of their fathers.

I had long suffered the inconvenience of living without a garden, and I had often observed, when on a visit to a friend, how different—how much nicer every thing tasted, than when the same articles were served up on my own table. My husband endeavored to persuade me that the difference was only imaginary—that exercise gave me a good appetite, and that made all the difference. I could hardly believe this; and when I saw the article mentioned above, I exclaimed, "There it is." My husband, who thought I had discovered something wonderful, said, "What is it?" I replied that I had now found out the secret why my friend Jane W. can furnish her table so much nicer than myself, with less expense, and without possessing any more skill; and I was bound to have a garden. Previous to this, our garden, which was rather small, (yet large enough, we found, when taken care of,) had a few fruit trees, a neglected strawberry bed, a few raspberry bushes, &c. But my husband always argued that such things could be bought cheaper than they could be raised, and this was the excuse for neglecting the garden. The article referred to, appeared in the January number for 1849. As soon as the frost was out of the ground, I went to work. When my husband saw I was in earnest, and ready to do the work "single handed and alone," if necessary, he was ready to help me. So we had the ground manured, took the ashes from my leaches, and spread them. Then it was well spaded up. I then had the strawberry bed thinned out by digging about two-thirds under, leaving them in rows, and placing manure and ashes between the rows. Next, I made a new bed of strawberries, and trimmed and staked the raspberry bushes, pruned and dug around the currants, trees, rhubarb, &c. After this, I sowed peas, beans, flowers, and so on.

Now for the result—the reward for all this labor. Last summer (1849) we had a good garden; but I kept improving, and it is of the present (or rather, past,) summer that I wish to speak, as it was not till this year that things came to perfection. In the first place, I had rhubarb large and fine, while before my rhubarb stalks, from the very same roots, were so small and worthless, that I usually preferred buying to using my own. Then lettuce, and radishes, and early peas. A little later, the Tall Sugar Peas, and other peas, as much finer than the marrowfat as the marrowfat is finer than the common field pea. Following in quick succession, came cucumbers and summer squashes and beets, and sweet corn and Lima beans. The excellence of these Lima beans I had no idea of before. I have now quite a store of vegetables to put in the cellar, for winter use, such as winter squashes, &c. All this, and a good deal more I have not mentioned, in the vegetable line.

Now, a word for the fruits. The first fruit was the early strawberries. I had *enough* of this fruit during the whole season. Next followed White and Red Antwerp raspberries, and then currants. The White Dutch were large and sweet—very different from the small sour things I have usually bought. I like the English Black very much for cooking. Gooseberries I used for cooking, from the time they were about half grown until they ripened. The larger fruits have done well, with the exception of plums. I have had plenty of fine grapes from an old Isabella vine pruned as recommended in the March number of the Farmer.

And now, having told my experience in gardening, I can say I am well paid for all my trouble. I now possess more knowledge of the proper way of cultivating fruits, &c., than I ever expected to possess; and though I did not learn it all from the Genesee Farmer, yet, as it was your paper that first set me at work in my garden—that first induced me to observe the nature of plants, and the practice of those who cultivate them the best—that first gave me a taste for reading on the subject, that opened to my view a new creation, and showed me the wonders and mysterys and beauties of the vegetable world,—I can say that I would not be deprived of the benefit I have gained from it, for the price of a hundred years' subscription. EMILY.—*Buffalo, N. Y., Oct.*, 1850.

THE article quoted by our correspondent EMILY. was written by the writer of this, and since that time has appeared in nine-tenths of the papers in the country—sometimes credited to an "*English Paper*," sometimes to a paper that stole it bodily from the Farmer, and sometimes without any credit. But if one of every ten thousand who have read it, has derived as much benefit from its perusal as EMILY, we care but little for the credit. We hope our fair correspondent will continue to give us her experience in gardening, that others may be induced to participate in the pleasures which a well kept garden afford.

Nothing shows want of care as quickly and as unmistakably as the garden, or so promptly rewards intelligent labor. In other things we may perhaps conceal, or in some way atone for want of care; but, in the garden, every plant—every shrub and tree—every fruit, leaf, and blossom—proclaim to all who behold, in unmistakable language, the ignorance or negligence of the owner—or else unite to sound his praise in songs of gratitude. We love the praise. as we deprecate the censure of such faithful friends.

SWEET HOME.

How dear are the blossoms that cluster round
  The home that our childhood knew;
How sweet is the incense that springeth up
  From the plat where the wild-flowers grew.

Each silver crowned bell, each roseate cup,
  Brings back to the heart some tone,
That memory hushed in the inmost cell
  To wake by their call alone!

Editor's Table.

AGRICULTURAL SCHOOL IN WAYNE COUNTY.—We have received a Circular from a Committee of the friends of Agricultural Improvement in Wayne County, containing a proposition for the establishment of an *Agricultural School* at Clyde. By the following proposition, which we extract from the Circular, it will be seen that our old friend JOSEPH WATSON, is now, as ever, at the head of every good movement:

"MR. WATSON proposes to give a farm of about fifty acres, to any association which shall erect upon it suitable buildings and fixtures of the value of $5000, with proper arrangements for the future support of the school. The condition of this proposition is, that the Association shall pay to him or to his assigns, during the natural lives of himself and wife, the sum of $300 annually; and after the death of either, the sum of $150; and upon the death of both, the premises to become the property of the association.

The farm is situated within the bounds of the corporation of the village of Clyde. It last year yielded produce of the value of $900, and received the highest premium of the Wayne Co. Agricultural Society. The committee deem it worth $100 per acre.

It is proposed to raise the sum of $5000, in shares of $100 each; and that each share shall entitle its holder to one vote in the election of officers, and the management of the monetary affairs of the Institution; to the tuition of one pupil in perpetuity in the Institution; and to an equitable share of the profits.

It is proposed that the course of instruction shall embrace all the branches of education usually pursued in academies and higher seminaries of learning, with Practical and Scientific Agriculture, and Domestic Economy as the leading features of the Institution.

Subscriptions to be paid to a Treasurer chosen by Trustees, who are to be elected by the share-holders, and to be paid at such times and in such portions, (not exceeding 25 per cent. at one time,) as shall be required by the Trustees after perfecting the organization."

We regret very much that, for some unaccountable reason, the Circular did not come into our hands until after the October number was issued, though it is dated previous to that time, and now, we fear, from our knowledge of the public spirit of the people of Wayne County, that all the shares are taken up. The enterprise we hope is so far advanced as to secure the establishment of the School, as proposed by its friends. But, as we consider the stock better than bank or railroad stock, we hope we have friends in Wayne who will intercede for us, and secure the editors of the Genesee Farmer at lest one share. The Treasurer may draw on us for the funds when needed. If there are other shares to spare, we hope our friends STREETER or WATSON will inform us of the fact immediately.

WE invite the attention of young men to the advertisement of Prof. NORTON, of Yale College. We know of no more honorable or more useful study, in which a young man could engage, than Agricultural Chemistry.

THE SARATOGA COUNTY FAIR, which was held on the 16th and 17th of the present month, was one of deep interest to the agriculturist. The exhibition of stock of all descriptions was far more numerous than, and superior to, that of any preceeding year, the number of single horses entered being upwards of fifty. The Floral Department was in comparison with the last State Fair—a decidedly exemplary one. The Vegetable Hall was at least 20 per cent. in her advance. The funds received during the show amounted to nearly $600. The premiums were somewhat controlled by kisses and favors which tend greatly to annoy her prosperity. S. H. SWETLAND.

The greatest difficulty we apprehend is, that the regularly appointed committees, for some reason or other, fail to attend to their duties, and others have to be appointed in their places, on the spur of the moment, from those that happen to be on the ground. It cannot be expected that proper persons will in all cases be appointed in this way. At the Monroe County Fair, on the first day, we should judge two-thirds of the committees never appeared on the ground.

THE editors of the Genesee Farmer want to purchase ten or fifteen acres of land, near the city of Rochester, *for experimental purposes*. Persons having such for sale, will notify us.

THE EFFECTS OF WHITEWASH IN PRESERVING PLUMS FROM CURCULIO.—Several correspondents of the Horticulturist are recommending lime as the best means of saving Plums and Apricots from the Curculio. C. L. YOUNG, of Bricksville, Cuy. Co., Ohio, gives us his experience in the following note:

"One thing I would wish to observe in regard to the insect that destroys our plums. When the article in the Farmer appeared, recommending dusting the trees with lime when they were wet, so as to form a whitewash on the plum, I had quite a large number of the *brats* in a large glass jar, trying experiments with them. I immediately gave a few plums a good coat of whitewash and put them in the jar with those not coated, and I could see no difference, as they stung all alike, indiscriminately. So my faith burst and left me musing on the *mortal enemy*."

AMERICAN MUSICAL REVIEW.—This monthly periodical, devoted to the advancement of the art of music, is edited by Mr. WOODBURY, and published by HUNTINGTON & SAVAGE, New York. It is replete with valuable musical compositions both sacred and secular, and should be patronized by every friend of this divine art. Price only 50 cents a year.

SPIRITS OF TURPENTINE A CURE FOR POISON.—If any person should be stung by a bee or other insect, rub some spirits of turpentine on the place, and the pain will be nearly ceased in one minute. It is said the pain arising from the bite of a copperhead snake may be arrested in a few minutes, by the continued application of this article, and from my own knowledge of its effects in other cases, I have not the least doubt of it. The effect of all poisons is to contract the blood vessels and prevent a free circulation; the natural consequence is pain and inflammation immediately. Spirits of turpentine by their penetrating and expanding qualities, soon overcome the difficulty.

We give the above, which has been going the rounds of the papers, for what it is worth. Those who have been stung can try it, and then, perhaps, they will be bitten as well as stung.

THE GOOD OLD PLOW.—A few evenings since we accepted an invitation from the HUTCHINSONS, and attended one of their Concerts. We were so well pleased with one of the songs, that we solicited a copy of the words. It contains truthful sentiment beautifully expressed, and it was enough to make any one in love with the "Good old Plow," to hear it sung by the farmer's boys of the "Old Granite State."

Let them sing who may of the battle fray,
  And the deeds that have long since passed;
Let them chant in praise of the tar whose days,
  Are spent on the ocean vast.
I would render to these all the worship you please,
  I would honor them even now;
But I'd give far more from my heart's full store
  To the cause of the Good Old Plow.

Let them laud the notes that in music float,
  Through the bright and glittering halls;
While the amorous twirl of the hair's bright curl,
  Round the shoulder of beauty falls;
But dearer to me is the song from the tree,
  And the rich and blossoming bough,
O, these are the sweets which the rustic greets
  As he follows the Good Old Plow.

Full many there be that we daily see,
  With a selfish and hollow pride,
Who the plowman's lot, in his humble cot,
  With a scornful look deride;
But I'd rather take, aye a hearty shake,
  From his hand than to wealth I'd bow;
For the honest grasp of his hand's rough clasp,
  Has stood by the Good Old Plow.

All honor be then to these gray old men,
  When at last they are bowed with toil,
Their warfare then o'er, they battle no more,
  For they've conquered the stubborn soil;
And the chaplet each wears, is his silvor hairs,
  And ne'er shall the victor's brow,
With a laurel crown to the grave go down
  Like the sons of the Good Old Plow.

PREMIUMS FOR 1851!

THE editors of the Genesee Farmer have circulated in premiums, and in other ways, during the past year, over Five Hundred Dollars worth of the best Agricultural Books published in this country. These works, on *Agricultural Chemistry, Geology, Botany, Horticulture, Gardening, Rural Architecture, Farm Economy, the Management of Sheep, Horses, &c., The Treatment of Diseased Animals, &c.*, we believe have exerted. and will continue to exert a very beneficial influence. Their influence is not confined to those who receive them, but is felt by their children, their friends and neighbors. They must increase the knowledge, and consequently the power, the influence and the wealth of those for whose especial benefit we labor. The coming year it is not our intention to decrease, but rather to increase the circulation of these works.—With a view, therefore, to this object and to extend the circulation and increase the usefulness of the Genesee Farmer, we offer the following liberal premiums to the friends of Rural Improvement who may interest themselves in obtaining us subscribers.

Premiums to Individuals.

1st. TWENTY Dollars, in Agricultural Books, to the person who shall send us the largest number of subscribers, at the club prices, before the 15th day of April next, so that we may announce the successful competitors in the May number.

2d. FIFTEEN Dollars, in Agricultural Books, to the person who shall send us the second highest list, as above

3d. TEN Dollars, in Agricultural Books, to the person who shall send us the third highest list, as above.

In order to make the circulation of the books more general, and to reward *every one* of the friends of the Farmer for their exertions in its behalf, we will give to those not entitled to any of the above premiums,

1st. To every person who sends us SIXTEEN subscribers, at our club terms of *three shillings each*, Johnston's Lectures on Practical Agriculture, (paper cover) Cole's Disease of Animals, American Fruit Book, or any other good Agricultural work valued at Fifty cents.

2d. To every person sending us TWENTY-FOUR subscribers, as above, Norton's Elements of Scientific Agriculture, Allen's Domestic Animals, Buist's Kitchen Gardener, Johnston's Lectures on Practical Agriculture, (nicely bound,) or any other Agricultural work valued at Seventy-five cents.

3d. To any person ordering THIRTY-TWO copies of the Farmer, The American Farm Book, Thomas' Fruit Culturist, The American Shepherd, or any other good Agricultural work which sells at One Dollar.

4th. For FORTY, Johnston's Agricultural Chemistry, Boussingault's Rural Economy, Downing's Fruits & Fruit Trees of America, or any other book or books valued at One Dollar and Fifty cents.

For larger numbers, books given at about the same proportion.

County and Town Premiums.

To aid as much as possible in establishing County and Town Agricultural Libraries, we offer the following premiums, which we hope will aid in the more general establishment of Agricultural Libraries in the Towns and Counties.

1st. We will give an Agricultural Library worth FIFTY DOLLARS, to the County in which the greatest number of copies of the Genesee Farmer is taken by the 16th of April next. This Library to be kept as a County Agricultural Library under the care of the Agricultural Society.

2d. To the Town in which the greatest number of copies is taken, an Agricultural Library worth THIRTY DOLLARS, to be kept as a Town Agricultural Library, under the care of the Town Agricultural Society, if one is established, if not, under the care of some person or persons appointed by the subscribers themselves.

As the above premiums will probably be taken in the State of New York, and as we wish to give our friends in other States an equal chance in the competition, we offer the same premiums to the Counties and Towns OUT OF THE STATE OF NEW YORK, thus:

1st. To the *County out of the State of New York* in which the greatest number of copies of our paper is taken, an Agricultural Library worth FIFTY DOLLARS.

2d. To the *Town out of the State of New York* in which the greatest number is taken, an Agricultural Library worth THIRTY DOLLARS.

INDIVIDUALS will receive the premiums to which they may be entitled, for their individual benefit, as a compensation for their personal exertions, and the numbers they send will be credited to the Towns and Counties where the papers are sent, so that the premiums to individuals will not at all interfere with the Town and County premiums.

BACK VOLUMES of the Farmer will be furnished, if desired, and counted the same as new subscribers.

☞ That all Post-Masters, Local Agents, and Subscribers, wherever the Farmer circulates, may have a fair and equal chance to obtain the Premiums, *traveling agents, post-riders, residents of Rochester, and all city booksellers* are not included in our offer, except the offer of books for a definite number, (16, 24, 32, &c.)

We shall keep a correct account of the subscribers sent by each person, county and town. In the March and April numbers of the Farmer we will publish a statement, so that all may know the prospect of success, and act accordingly. In the May number we shall announce the premiums.

Libraries and *Books* will be forwarded per order, immediately after the announcement, and persons or societies can select their own books, or leave the selection to us.

☞ Specimen numbers, show-bills, &c., sent to all post-paid applicants. All letters must be paid or free. Subscription money, if properly enclosed, may be mailed at the risk of the publisher

BOOKS ON AGRICULTURE, &c., &c.,

For Sale at the Office of the Farmer.

The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed:

American Agriculture, by Allen. $1.
American Farm Book. $1.
American Poultry Yard, by Brown. $1.
American Shepherd, by Morrell. $1.
American Veterinarian, by Cole. 50 cents.
Buell's Farmer's Companion. 75 cents.
Buist's Kitchen Gardener. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Coleman's Continental Agriculture. $1.
Complete Farmer. $1.
Cole's American Fruit Book. 50 cents.
Domestic Animals, by R. L. Allen. Cloth, 75 cts; paper. 50 cts
Downing's Fruits and Fruit Trees of America. $1 50.
Downing's Landscape Gardening. $3 50.
Essay on Manures. 25 cents.
Farmer's and Emigrant's Hand-Book. $1.
Farmer's Manual.
Gardener's Farmer's Dictionary. $1 50.
Home Doctor. 25 cents.
Horse Doctor. 25 cents.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Johnson's Dictionary of Gardening $1 75
Kirby & Spencer's Entomology. $2.
Knowlson's Complete Farrier, or Horse Doctor. 25 cents.
Ladies' Companion to the Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1; paper. 75 cts
Liebgig's Agricultural and Animal Chemistry, [pamphlet editions.] 25 cents each.
Loudon's Ladies' Flower Garden. $1 25.
Mason's Farrier and Stud Book. $1.
Miner's Bee-Keeper's Manual. $1.
Norton's Elements of Scientific Agriculture. 50 cents.
Poultry Book, by Bennett. 75 cents.
Rural Economy, by Boussingault. $1 25.
Scientific Agriculture, by Rodgers. 75 cents.
Stable Economy, by Stewart. $1.
The Bird Fancier. 50 cents.
Treatise on Milch Cows. 38 cents.
Trees of America. $4.
Youatt on the Pig. 75 cents.

ALSO:

2 sets Chamber's Miscellany. $8 per set.

⁂ These books can be safely forwarded by mail to any part of the country.

☞ Orders from a distnnce will receive prompt attention and the books forwarded by Mail or Express as desired.

Morgan & Wilson, Dentists,

OFFICE, corner of North St. Paul and Main streets, [illegible] story, beg leave to inform their friends and all those desirous of obtaining first class of operations upon the teeth that they have again associated themselves together, and are in every way prepared to insert teeth on gold plate, from one to an entire set, or repair the decayed natural organs, with gold filling, so as to preserve them during life.

To the Profession they would say, they have a large assortment of Alcock's Mineral Teeth, Gold Plate, Spiral Springs and quantities of Morgan's Premium Gold Foil, constantly on hand.

Orders by mail filled at sight.

They can sell Teeth 30 per cent. less than they can be had elsewhere in the city.

Specimens of their Plate Work can at all times be seen at the office.

☞ Just received a large stock of Alcock's premium gum and single Teeth, which they are selling at New York prices.

A. A. MORGAN. E. F. WILSON.

☞ Office, corner North St. Paul and Main streets.
Rochester, November 1, 1850.

Seedlings, &c., for sale at the Geneva Nursery.

Two year old Pear seedlings,	$12 per
Cherry and Plum seedlings,	[illegible]
Quince, budded this season with the choice varieties of Pear,	35
Cherry, budded this season with the most popular varieties,	25

Buckthorn, Mountain Ash, and Horse Chestnut seedlings, one to three years old, at low prices.

The above seedlings are of uncommon excellence.

Also, every variety of fruit and ornamental trees for sale.

Geneva Nursery. W. G. VER PLANCK.
October, 1850. [10-2t*]

Rochester and Charlotte Plank-Road Nurseries,

ROCHESTER, MONROE CO., N. Y.

THE Subscribers respectfully solicit the attention of Fruit Growers and Tree Dealers to their healthy stock of Fruit and Ornamental Trees offered the ensuing autumn, consisting in part as follows:

Apple Trees—from 6 to 9 feet high, all popular sorts, from $15 to $18 per 100. Northern Spy. in large or small quantities, from 5 to 10 feet high, from $20 to $25 per 100.

Cherry Trees—from 5 to 10 feet high, handsome headed and thrifty trees, from $18 to $25 per 100.

Peach Trees—two years old from bud, free from all diseases, the most esteemed varieties, from $12 to $16 per 100.

Raspberries—Fastolff, Franconia, Red and White Antwerp, $2 per hundred.

Strawberries—Burr's New Pine, Columbus, Rival Hudson, Boston Pine, $2 25 per 100. Hovey's Seedling, and a dozen other sorts, from $1 to $1.50 per 100.

Rhubarb—Giant sort, (true,) the most desirable for market gardeners, an excellent forcer, $10 per 100, $70 per 1.000. Myatt's Victoria Rhubarb, largest in cultivation, $4.50 per dozen.

ORNAMENTAL TREES AND SHRUBS.

European Mountain Ash, from 6 to 12 feet high. very ornamental for cemeteries, avenues, lawns, and streets. $25 per 100.

Norway Spruce, Scotch Pine, Weymouth Pine, Pine Aster, White Pine, Larches, Hemlock, Spruce, from 3 inches to 3 feet high. and some 5 to 10 feet high. at low rates.

Japan Spiræa, (Spiræa prunifolia flore pleno.) from 3 inches to 3 feet high. from $1.50 to $3 per dozen.

Spiræa Lanceolata, Douglassi, Hyperecifolia, Thalictrioides, &c., &c., $2.25 per dozen.

Forsythia Veridissima, (Chinese Forsythia,) $2.25 per dozen.

Wigilia Rosea, the most beautiful shrub introduced lately, perfectly hardy. $3 per dozen.

Deutzia Scabra, Canescens, Nova Japonica Gracilis, $2 per doz.

Twelve varieties of Honeysuckles, including the Chinese, (Lonicera Flexuosum,) $2 per dozen.

Running Roses—Queen of the Prairies, Baltimore Belle. Russel's Cottage, Laura Davoust, Dundee Rambler, Ayrshire, Felicite Perpetuel. and a number of others, $2.25 per dozen. Bourbon, Noisettes, Teas, Hybrid Perpetuals; all robust growers, shrubby habit, such as Malmaison, La Reine, Dr. Morp, Mrs. Elliott, Madam Laffay, Cloth of Gold, Bourbon Queen, Triumphe de la Guillotierre, &c.. &c., $3 per dozen.

Privet, for hedges, adapted to cemeteries, makes beautiful garden division hedges. $15 per 1000.

A general nursery collection under extensive propagation.

C. J. RYAN being a regular bred Horticulturist of upwards of twenty years practice, in the first establishments in England and this country, is some guarantee for the accuracy of every tree. plant and shrub sent from this establishment.

A Catalogue of the entire stock will be published next month.

C. J. RYAN & CO., Proprietors.

Sept. 1850.

School of Applied Chemistry, Yale College, New Haven

JOHN P. NORTON, PROF. OF SCIENTIFIC AGRICULTURE.

STUDENTS are received in this Laboratory as a special class, distinct from the other College departments, and instruction is given in all branches of Chemistry, both organic and inorganic, general and special.

Every facility is afforded to those who desire to study Scientific Agriculture generally. or the analysis of soils. plants, animal substances, manures, &c. Students fitted to become instructors in this branch of science.

A course of Lectures, upon Scientific Agriculture, by Prof Norton. will commence about the middle of January, and continue two and a half months. This course is intended to present a plain and intelligible view of the connections of Science with Agriculture, which may be understood by any farmer.

The Lectures of Prof. Silliman on Geology and Mineralogy. and those of Prof. Olmsted on Nat. Philosophy, Astronomy and Meteorology, also the College Libraries and Cabinets, are accessible to the students.

For information as to terms, &c., apply to Prof. Norton.

Nov. 1, 1850. [11-4t]

Fruit and Ornamental Trees.

THE subscribers offer for sale at their Garden and Nursery. Mt. Hope Avenue, opposite Clarissa street bridge, Rochester, a fine assortment of Fruit Trees, comprising the best cultivated varieties. They are very thrifty, and will be sold at low prices.—Also, a choice selection of Ornamental Trees, Flowering Shrubs, &c. A choice variety of hardy perpetual Roses, bulbous roots, flower seeds, &c. A choice variety of Double Dahlias, Green House Plants, &c. KING & DAWE.

November, 1850.

WANTED.

A YOUNG MARRIED MAN without a family would like to take a small farm in Western New York, suitable for Fruit grazing and tillage, to cultivate on shares, for two or three years, with the intention of becoming purchaser if the place suits and the owner wishes to sell.

Satisfactory references will be given if required.

Any communication directed to O. E. G , Troy, N. Y., will meet with prompt attention. [11-2t*]

Two Farms for Sale in Fairfax County, Va.

I AM AUTHORIZED TO SELL a Tract of Land in the county of Fairfax, containing 217 acres, about 30 of which is covered with timber, comprehending several varieties of Oak, Poplar, Hickory, &c. There is also a wood lot of 18 acres. Of the cleared land, about 100 acres is considerably improved, as is shown by the crops now on it. The orchard of about 12 acres, is most thrifty—the fruit various and select. The place is watered by a stream.the two branches of which are covered with timber for a mile or two above, and which, within the limits of the farm, has a fall of 17½ feet clear, being amply sufficient for a saw mill during seven or eight months of the year, and would suffice for a family grist mill. The buildings consist of a dwelling house containing six comfortable rooms, besides the garret, two cellars, a store room, kitchen, servant's room, &c.; a comfortable farm house sufficient for the manager's family and the farm laborers; also a large new frame barn. 58 by 32 feet, with 16 feet posts. This farm is about two miles from the Falls Church, eleven miles from the city of Washington, ten miles from Alexandria, and 8 from Georgetown. by the nearest road. It is well watered and remarkably healthy.

The second Tract contains 167 acres, and is situated two miles east of Fairfax Court House, Va.. and about equal distances from the cities of Washington. Georgetown. and Alexandria, viz., fourteen miles. There is about 50 acres of timber upon this tract, and about 20 in small Pines and scattering forest trees, the balance being nearly cleared and in good condition for cultivation. It lies in a desirable part of the county. and on the line of a proposed plank road, in a direct line from Fairfax Court House to Georgetown. The dwelling house is comfortable, and a good milk house and other out buildings are on the place, a good well of water at the door, and the farm well watered otherwise; with an abundant supply of good fruit, such as apples, cherries, peaches, &c. The land is divided, unequally, into nine lots, fenced with rails mostly new. Adjoining this tract is a new and improved saw mill, at which there is a market for all kinds of lumber. Any person visiting Fairfax Co. will find it to their advantage to call on the subscriber, when they can be informed of other tracts if either of the above did not suit.

For further particulars apply personally, or by letter, to the undersigned, at Fairfax Court House, Va.

Letters directed to "Fairfax News," Fairfax Court House, Va., postage paid, will recive a prompt reply. H FULLER.

Fairfax Court House, Va., Sept. 21, 1850. [11-tf]

SALE OF MERINO SHEEP.

I WILL SELL at my Farm, on Wednesday, the 20th day of November, at 1 o'clock P. M., at Auction, 40 Merino Rams and 100 Merino Ewes.

These Sheep I have bred from Sheep I purchased of J. N. Blakesly, Esq., of Watertown, Conn. A history of his sheep can be found in the Cultivator for 1844, at page 238.

At my last shearing I took off 180 fleeces, 100 of them from breeding Ewes, 60 from shearlings. and the balance from Rams and Wethers. They averaged 4¾ lbs.

For the quality of the Wool, I give the copy of a letter from H. G. Ellsworth, Esq., Agent of Woolen Manufacturing Co. in this city, to the editor of the Genesee Farmer.

Office of the Auburn Woolen Company,
Auburn, N. Y., Oct. 8, 1850.

Editor Genesee Farmer—Dear Sir:—Learning that Col. J. M. Sherwood, of this city, has proposed to sell a portion of his Merino Sheep, I take pleasure in recommending them to the attention of such persons as may wish to improve their stock of this kind. I have manufactured, in the Mills of this company, the wool taken from this flock, during the last three years, and find it *grades higher and more even, spins better, and is, on the whole, superior to any lot of Merino wool I have met with*.

H. G. ELLSWORTH, Agent.

The Rams will be put up at ten dollars each. The Ewes will be sold in lots of five, and will be put up at five dollars for each Ewe. If these prices are not offered, they will remain mine.

Terms—Cash at the Sale J. M. SHERWOOD.

Auburn, N. Y., Nov. 1, 1850.

To Fruit Growers and Nurserymen.

ELLWANGER AND BARRY solicit the attention of all tree planters, Nurserymen and Dealers to their present stock, which is much larger and better than they have ever before had the pleasure of offering.

It embraces, among other things, in large quantities,

Standard Fruit Trees, of all sorts.

Dwarf and Pyramidal Fruit Trees, for Gardens.

Gooseberries, Strawberries, Raspberries, Currants, &c., all the newest and best kinds.

Ornamental Trees, Shrubs, Roses, &c., including all new, rare and desirable articles.

Buckthorn, Osage Orange and other Hedge Plants.

Stocks of all sorts for Nurseries.

Green House, Border and Bedding Plants.

Double Dahlias, &c., in immense quantities.

Wholesale prices furnished when desired.

A new edition of the general descriptive Catalogue is now ready and will be sent gratis to those who apply post paid.

Mount Hope Garden and Nurseries,
Rochester, N. Y., Sept. 1, 1850.

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PENFIELD NURSERY.

THE Proprietors of the above Nursery, situated in the village of Penfield, seven miles east of Rochester, and three from the Canal and Railroad, offer for sale a very extensive assortment of Fruit Trees of the most approved and choice kinds, of extra size and vigorous growth. Being entirely worked by themselves, and mostly cut from bearing trees of their own, or obtained from the most reliable sources, will be a sufficient guarantee of their genuineness. As their collection of Fruit Trees now fit for transplanting, is very extensive, being from 50 to 75,000, from five to ten feet high, they offer them to wholesale purchasers at greatly reduced prices. We are prepared to offer great inducements to those who buy to sell again; and to those setting out orchards, we can furnish larger and better trees, and at less prices, than can be purchased elsewhere. Call and see.

All post-paid applications promptly attended to.

H. FELLOWS & SONS.

Penfield, Oct. 14, 1850.

Postponed Sale of Full Bred Short Horns and Improved Dairy Stock.

OWING to affliction in my family, I have postponed the Annual Sale which was to take place in October, 1850, until the 26th day of June, 1851.

I also decline selling any stock by private sale, so as to offer the Public, at Auction, all the Animals I have to part with, without having any previously selected from the herd; and all animals offered, will be sold without reserve.

My new importations of Short Horns, Devons, South Down Sheep, and Hogs will arrive sometime during the Fall.

Timely catalogues, with full descriptions of each animal, will be published in the principal Agricultural journals.

L. G. MORRIS.

Mount Fordham, Sept. 16th, 1850. [11-1t]

Hay and Straw Cutters.

I HAVE on hand Fifty of the best Straw and Hay Cutters that are made in this country. The frames are all of White Oak, knives spiral, and cut on raw-hide rollers. Price from $8 50 to $15. Call at the Seed and Tool stores of JAMES P. FOGG.

Nos. 12 and 14 Front st.

Rochester, Nov. 1, 1850. [11-3t]

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850. [6-tf]

The Practical and Scientific Farmer's Own Paper.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c.

VOLUME XII, FOR 1851.

DANIEL LEE & JAMES VICK, Jr., Editors.

P. BARRY, Conductor of Horticultural Department.

In issuing a Prospectus for the Twelfth Volume of the Genesee Farmer, the Publisher flatters himself that it is too widely known, too extensively circulated, and too well read, to render it necessary to state at length the design of the work. Those who read the Farmer are the best judges of its value, and those unacquainted with it are requested to examine its pages.

We number among our Contributors, hundreds of the best Practical Farmers in the country, and our readers have through our pages, the benefit of their wisdom and experience. No thinking man can read any number we issue, without receiving some useful hint in regard to the management of crops, stock, or the orchard, of more value than the price of the volume. The Genesee Farmer is by far the cheapest Agricultural Journal published in America. Our TWENTY THOUSAND SUBSCRIBERS places us ahead of all other Agricultural Journals, and enables us to furnish a paper for the trifling sum of *Three or Four Shillings*, equal to any, both in *value* and *beauty*. That we have done this thus far, our friends and readers will bear us witness. But we intend more fully to accomplish this in the volume for 1851. The Genesee Farmer is truly the *Practical and Scientific Farmer's Own Paper!* It will continue to be edited by the old Editors, assisted by a host of the best practical Farmers, Gardeners and Horticulturists in the country.

The new volume will commence on the 1st of January, 1851. It will be published in the best style, as heretofore—on HANDSOME and CLEAR TYPE and *superior paper*. The volume will be APPROPRIATELY ILLULTRATED—containing numerous and expensive Engravings of *Farm Buildings, Improved Implements, Domestic Animals, choice Fruits, Flowers, Shrubs, &c* ☞ Each number will contain TWENTY-FOUR ROYAL OCTAVO PAGES! making a large and handsome volume of about 300 pages, (with Title Page, Index, &c., suitable for binding,) at the close of the year.

An earnest advocate of improvement of both the *Mind* and the *Soil*, the Farmer seeks to advance the Rural interests of the country, and elevate the profession of Agriculture to its proper position. To accomplish this, it has labored long and faithfully, and not without some success. Its position as the *cheapest*, and, at least, one of the BEST AGRICULTURAL JOURNALS in the country, is fully established, and we confidently ask for it that support which it merits from the Farmers, Gardeners and Fruit Culturists of the U. States. Grateful for the unexampled patronage already extended to the Farmer, we solicit the aid and co-operation of all its friends and readers to increase the circulation and thus augment the usefulness of the *cheapest Agricultural Magazine* ever offered to the American Public. We invite all who feel the importance of sustaining this work, and extending its usefulness, not only to subscribe themselves, but introduce it to the patronage of their friends.

Fifty Cents a Year, in Advance.

Five Copies for $2; Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ Post-Masters, Agents, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to

DANIEL LEE,
Rochester, New York

December, 1850.

O. B. SCOTT,

Local and Travelling Newspaper and Periodical Agent.

PIERREPONT MANOR, JEFF. CO., N. Y.

☞ Mr. Scott will take subscriptions for the Genesee Farmer.

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

VOL. XI. ROCHESTER, N. Y.—DECEMBER, 1850. NO. 12.

POTASH AS A FERTILIZER.

From our boyhood to the present time, we have noticed that soils which abounded in *potash*, as demonstrated by their producing large forest trees rich in this mineral — the accumulation of centuries — were always distinguished for their fertility. If there are any exceptions to this rule, where the land is properly cultivated and drained, they have escaped our observation. Taking a similar view of this interesting subject, M. **Burger**, a German author, gives the following table of the amount of ashes in 100 parts of dry wood, and a few other products of the earth, as found by him on analysis :

100 lbs. of	Elm or Maple gave	2.400	ashes—	0.390	lbs.	potash.
"	Oak,	1.350	"	0.155	"	"
"	Poplar,	1.230	"	0.075	"	"
"	Box,	0.584	"	0.145	"	"
"	Fir, (Pine,)	0.341	"	——	"	"
"	Vine,	3.379	"	0.550	"	"
"	Fern,	5.000	"	0.626	"	"
"	Maize stalks,	8.300	"	3.600	"	"
"	Wheat straw,	4.300	"	0.390	"	"
"	Oat straw,	5.600	"	0.870	"	"

By copying from **Schwertz**, **Sprengel**, **Liebig**, **Will**, **Boussingault**, and other continental analysts, researches of this kind might be indefinitely extended; but it is thought more useful to invite attention to the facts above stated, than to multiply figures the purport of which might not be fully seen by many readers. As 100 lbs. of maple wood consume 2.4 lbs. of earthy minerals in which there are .39 lbs. of pure potash, it is obvious that for every 1000 lbs. a tree of this kind, or an elm, adds to its solid weight, 3.9 lbs. of this alkali are extracted from the soil, to say nothing of the potash in its leaves and bark, which contain more ashes than the wood. Oak forests will grow on poorer land than elm and maple ; for 1000 lbs. of its wood contain only .155 lbs. of this alkali. In 100 lbs. of fir (pine,) the ash is only a third of a pound, and the potash too small for the chemist to state the amount. In 100 lbs. of the wood of the vine, there is over a half pound of potash. The fruit of the vine is remarkable for the quantity of potash it contains. Fern is also rich in this element ; but corn-stalks and cobs are among the largest known consumers of this alkali. We are, however, inclined to suspect some typographical error in the figures that indicate the existence of over three and a half pounds of potash in one hundred of corn-stalks. They have a large amount of silica (flint) in their hard, glassy stems, which is rendered soluble in water before it enters their roots, by combining with a still larger quantity of potash. But all this alkali does not remain in the plant ; for most of the soluble silicates of potash are finally left as *insoluble salts* in and near the cuticle.

Corn plants are large consumers of incombustible minerals ; and all their stalks, cobs, and seeds, should be husbanded with care as manure. Straw, hay, pea-vines, and even forest leaves, are less appreciated as fertilizers than they deserve. Leached ashes composted with rotting corn-stalks, straw, or other manure, are much improved by the action of carbonic acid and ammonia on their insoluble salts. These are decomposed and rendered available at once, as food for plants. To show the importance of husbanding potash as a fertilizer, it is sufficient to state that a good soil rarely contains more than 1 part in 1000, while poor soils often have less than 1 in 10,000. A sample taken from near the Ohio river, "distinguished for extraordinary fertility," gave Dr. **Sprengel** only 12 parts of potash, combined mostly with silica in an insoluble condition, in 10,000.

In the "Geological Survey of Canada—Report of Progress for the year 1849–50,". we find several analyses of soils, which are full of interest. A sample from "the fine alluvial flats on the Grand river, below Brantford, which, owing to their richness, are scarcely adapted to wheat," gave the following results :

Alumina,	2,090
Oxide of iron,	2,520
Lime,	310
Magnesia,	456
Potash,	105
Soda,	060
Phosphoric acid,	380
Sulphuric acid,	008
Soluble silica,	006

It will be seen that 100,000 parts of this soil gave only 6 of soluble silica. The insoluble silica and organic matter are not estimated. In this exceedingly rich bottom, there is but a small fraction more than 1 part of potash in 1000 ; and of sulphuric acid, only 8 parts in 100,000.

As soda in common salt is much cheaper than potash, it is highly desirable to determine by careful experiments, how far the former alkali can serve as a substitute for the latter in the growth of potatoes, wheat, corn, and grass. One half of the ash obtained in burning potatoes, is potash ; and about a third of that of wheat is the same mineral. By mixing slaked lime and salt together in loam or manure, salt is decomposed, its soda is converted into a carbonate, and the lime into a chloride. If this soda can act as a substitute of potash in the organization of cultivated plants, the fact is of vast economical importance in husbandry. To our mind, nothing is plainer than the necessity of an experimental farm, to develop new truths in practical and scientific agriculture.

THE PRODUCTION OF MUTTON.—HERDWICK SHEEP.

WE have noticed with much satisfaction the increased consumption of good mutton in several cities, within the last few years. In no market is the proportion of this kind of meat larger, than in that of Washington. The flesh of mountain sheep, reared in Virginia, is superior, perhaps, to any other in the United States. It partakes largely of the flavor and liberal development of muscle (lean meat,) peculiar to venison. Like southern swine, these sheep travel a great deal, and acquire, as do deer and race horses, uncommonly fine muscles, with small weight of fat and bone. Indeed, the advantage of rearing sheep, as compared with neat cattle, for food, is very considerable in the saving of *bone*, which is not valuable in meat, but decidedly so in manure. The Duke of Bedford slaughtered four sheep, keeping an accurate account of the different parts of each animal, with a view to decide their relative proportions and value, with the following results :

	Southdown.		Leicester.		Worcester.		Wiltshire.	
	lbs.	oz	lbs.	oz.	lbs.	oz.	lbs	oz.
Weight of each sheep,	155	0	152	0	161	0	175	0
Skin...............	17	8	20	0	23	0	23	0
Fat, (tallow.)......	13	2	11	8	12	8	13	8
Head and Pluck,....	10	8	9	6	12	0	14	0
Entrails..........	13	4	11	2	16	0	17	10
Blood.............	5	14	6	0	8	0	8	2
Four quarters......	92	6	92	0	89	0	97	0
Waste in urine and evaporation,......	2	6	2	0	1	8	1	12
Bones, clean......	6	5¾	5	9	6	0	9	8

It will be seen that the weight of the bones is small, when compared with that of the animal, in the four breeds of English sheep. The skin, including the wool on it, is worth far more per pound than meat; while in estimating the weight of the entrails, their contents should not be taken into the account as organized matter formed at the same expense as flesh. The fat or tallow is also valuable above the price of meat.

We have long regarded the annual importation of millions of pounds of wool into this country, as discreditable to our agricultural enterprise, when considered in connection with our unlimited facilities for producing the article in all its grades. An increased demand for mutton in our rapidly growing cities and villages, must operate favorably on the wool-growing interests.

Some of our readers may wish to know what breed of sheep now extant, approaches nearest venison in flesh, and consequently are most valuable for the butcher. They are known in Cumberland, England, as the "Herdwick" Breed. A writer in a late number of the Journal of the Royal Agricultural Society, says that the origin of this family of sheep, is involved in some obscurity; but the traditional history is as follows: "Early in the last century, a ship was stranded on the coast of Cumberland, which had on board some sheep stated to have come from Scotland. They were got on shore, driven up the country and purchased by farmers living at Wasdale Head.—They were small, active, polled, and their faces and legs were speckled. They were at once turned upon the neighboring hills; they had not been there long before they evinced a peculiar sagacity in foreseeing the approach of a snow storm, as it was invariably seen that a little before its coming, *they clustered together on the most exposed side of the mountain, where the violence of the wind usually prevented the snow from lodging.*" This instinct caused them to be regarded with a degree of interest amounting to superstition; and the race is now fast displacing the old black-faced sheep in all that part of the island.

Interesting as is the story of the Herdwicks, (some regarding them as natives of the mountains of Wales,) we have not space to trace their history. At the West Cumberland Fell Dale Association Sheep Show, for the year 1848, there were *ninety-four* competitors for prizes exclusively devoted to this description of sheep, all of whom have their flocks within a very limited extent of country. Their wool is in great request with the Keswick manufacturers, and they are wisely distributing liberal premiums for the best white-fleeced sheep of the genuine Herdwick Breed. A singular anatomical peculiarity is found in many of these sheep, viz., that of having a rib more than any other breed, *fourteen* instead of *thirteen*. The wethers are sent to market directly from their mountain pastures; feeding them on turnips, clover, and other artificial food, impairs the wild or venison quality of their flesh. When in good condition, they weigh from ten to twelve pounds per quarter.

Railroads have become so numerous in the United States, that little inconvenience exists in sending fat sheep from the best grazing districts to any of the large cities; and we cannot but believe that the importation of some of the Mountain Sheep above noticed, so valuable for their flesh and shawl-making fleeces, would be at once a profitable and highly useful operation. In the mountainous districts of Pennsylvania, Virginia, North and South Carolina, Georgia, Tennessee, Ohio and Kentucky, they would find a congenial climate and range. No hay is given to Herdwicks during the winter; they support themselves as well as wild deer, in deepest snow, by scratching down to the herbage, and if any part is blown bare, they are sure to discover it. The lambs are dropped in the cold regions where these flocks subsist, not before the 12th of May, and they are well covered with wool when dropped. To increase the size of the breed, ewes are not allowed to run with rams till two and a half or three and a half years old. They are good nurses, and differ from black-faced sheep in being less inclined to ramble about, and remarkably attached to any spot on the sides of the mountains in which the shepherd has domesticated them.

There are many millions of acres of un-enclosed grazing land, in this extended republic, that might be turned to a most useful purpose in producing both wool and mutton. The hams of Herdwicks, cured like venison, are much sought in London market. If provision dealers were to turn their attention to packing in salt and barrels choice mutton, and thereby create a market for fat sheep, as well as hogs and cattle, no reasonable doubt can well exist that the farmers of the country would meet the same with a liberal supply. That salted mutton is not inferior to pork or beef, when a good article is properly cured, thousands of our readers can bear witness. Two pounds of mutton can be made for about the cost of one of pork; and for our eating, we much prefer the former to the latter. Sheep ought to have quite a variety in their daily food. When fed exclusively on one plant, like clover or turnips, their flesh always lacks its finest flavor. English mutton-growers cultivate many kinds of grasses in the same field or sheep walk, for the benefit of their flocks.

LETTER FROM HOLLAND.

Agricultural Colonies for Paupers.—A system for giving employment to persons who are willing, but unable to obtain work, has for several years been in successful practice at Fredericksvord and Willemsvord, in Holland. A description of the practical operation of this plan will, I think, be new and interesting to your readers. These colonies were established when, after two years of great scarcity, a large proportion of the population were reduced to absolute starvation, and were dependent entirely for subsistence on the charities of their more fortunate countrymen. So prevalent did the practice of begging become, that it was found necessary to do something to relieve these unfortunate men, and a Society was formed by a few benevolent individuals, the object of which was to find employment for such persons as were disposed to work. In carrying out their purpose, they not only conferred an immediate and lasting benefit upon these unfortunate men, but effected great national advantages by stemming the spread of vice, which would have been the natural consequence of such destitution, and also increased the resources of the country by converting into available land a waste upon which not even a sprig of heath could be met with before.

Such was the origin of these colonies about eight years ago. And no one can now travel the road along which they are situated, without noticing the great change that has been effected on the face of the country by their establishment; and this change is doubly observed as we pass from the unimproved waste to the neat cottages which line the road.—From a wild, barren country we enter at once upon a little *oasis*, which bears every mark of prosperity; neat cottages betraying the *Dutchman's* taste in their clean appearance; crops as luxuriant as if nurtured by a better soil, and gardens stocked with useful vegetables and adorned with a variety of flowers.—Each house is placed by the roadside, in the middle of the tract of land belonging to it, which consists of about seven acres. These cottages contain two rooms; one of them large, which answers the purpose of kitchen, dining-room, and bed-room for some of the family; the other small, with a bed at one end, and at the other a roomy closet, anwering the purpose of a milk room or dairy. The colonists are all supplied with implements, on entering upon their plats, and also with a cow and pig. The only crops grown are rye, potatoes, and grass. All the produce of their lands are taken to the general magazine, and a regular debtor and creditor account is kept with each colonist from the time of his first entering the colony. Everything they receive on entering is set down against them, and whenever they are enabled to pay off their debts, from economy in living, they are allowed to become tenants and to rent their land as independent farmers. The wages and rations allowed them, are as follows:—Suppose a family of eight persons, husband, wife, and eight children, three of whom with their father work, the other three go to school, and the wife stays at home. The sums set down as wages, &c., when reduced to our currency, amount to about the following:

Man at 25 cts. per day,		$1 50
Son at 20 cts. per day, and the other two at 60 cts. per week,		1 80
Wages earned by the whole family, per week,		$3 30
From which is deducted—		
Winkel geld,	$1 25	
Bread, potatoes, and clothing for eight,	1 85	—3 10
		$0 20

Which is put down to their credit for future emergencies.

By *winkel geld* is meant money for buying little necessaries, such as coffee, tobacco, &c, and the allowance for each person is about 15 cts. per week. The allowance for bread, potatoes, and clothing, is about 23 cts per week to each. There are several overseers who superintend the work done in the colonies. There are also schools for the gratuitous education of the children, and workshops in which they are taught some useful trade. At Willemsvord, which is the smaller of the two colonies, there are 170 seperate cottages and tracts of land, all of which are occupied by families who were once paupers, begging their bread from door to door. This scheme was never looked upon as a matter of speculation, for as such it was never designed. But it has succeeded in the object for which it was intended, viz.: the relieving of the poor and destitute, who have only the strong arms that God has given them, and are ready to sell their labor, but can find no man to buy.

Is the establishment of such colonies impracticable in our own country? Are there not thousands of unimproved acres, that have been condemned as useless, many of which exceed in fertility the barren wastes in which the Dutch colonies are situated? Are there not hundreds of unemployed hands who crowd our poor houses, haunt the streets and lanes of our large cities, who furnish three-fourths of the inmates of our jails and prisons, and who plead *poverty* in palliation of their vices and crimes? Money is raised to relieve the destitute, and it cannot be denied that many benevolent individuals, by the injudicious bestowment of their charities, encourage idleness and foster vice. Let some generous individual, who, like Gerrett Smith, has the means and the disposition to help the honest and deserving poor, or let a society of men, less able but equally benevolent, set the example, and put in operation an establishment like that which I have described, and if it succeeds, as I think it would, the benefits resulting would be incalculable. F. — *Amsterdam, Holland, August*, 1850.

THE DUNG OF SEA BIRDS.

The following is the analysis, by Coindet, of the dung of a sea-eagle:

Uric acid,	84.65
Ammonia,	9.21
Phosphate of lime,	6.13
	99.99

The 84.6 per cent. of uric acid is equal to 36.3 of ammonia. It is remarkable that this guano contains no carbon, except the little in uric acid. Recently formed guano, at the island of Ichaboe, is found to be richer in ammonia or uric acid, than the old stock which was exhausted a few years ago.

Inquiries and Answers.

FOWLS, PIGEON-WEED, &c.

Messrs. Editors:—Since I became a subscriber to your valuable periodical, I have been very much interested, and richly repaid by the perusal of its pages. And though unaccustomed to writing for a public journal, I have been induced, since reading the article and editorial remarks on page 210, in the September number of the current volume, to give a brief statement of my experience in keeping fowls.

I live in the village, and cannot have my fowls run at large during the season for gardening, without much inconvenience to myself and annoyance to my neighbors; and consequently have to adopt the plan, respecting the expediency of which your correspondent asks for information, and am fully convinced that the advantages to be derived from keeping fowls in this way, are not overrated in your remarks.

About the middle of February, I procured seven hens and a rooster, and added three to the number of hens, about the last of April. At different periods I set five hens, which unfortunately brought off but three broods of chickens, as some of the eggs which I procured for Poland Top Knots, failed to produce. Through losses in various ways, the chickens were reduced to about twenty-six; and what I have killed at different times this fall, leaves the whole number of old and young, at this date, twenty-four. None of the young ones have yet begun to lay.

I have fed them principally with screenings from wheat, bought at the mill, at from 1s. 6d. to 2s. per bushel, together with some barley, corn, and oats; but they prefer the screenings, and will not eat oats when they can get the former. I have given them occasionally some fresh meat, of which I have made no account, as lights and refuse pieces can at any time be had when purchasing meat for family use.—They have had a constant supply of pounded oyster shells, to form shells for their eggs, and also wood ashes in tubs for them to wallow in. I have kept an accurate account of all expenses for feed, and find that I have paid out $4.14, including about two bushels of screenings now on hand. My account at this date, Oct. 18th, shows the number of eggs produced, 795, and I believe I have in a few instances omitted to set them down. The number of chickens, about twelve, furnished for the table, may be estimated at one shilling each; besides I have now fourteen young fowls in addition to the old ones. And here I would say, that after considerable effort to procure the Poland Top Knot variety, I obtained a batch of eggs from some fowls purchased in Rochester several years since; they are about the size of the common fowl, rather short legged, with large top knot; some of them black body, and others pure white. Are they the pure Polands, or (as I have been informed) a French variety? I wished to procure the top knots, not only for their beauty, but to avoid the inconvenience arising from the frequent inclination of the common kind to sit.

I have used the Poultry Feeding Hopper, described in the February number of volume 10, Genesee Farmer, the plan of which I consider worth one year's subscription.

In reference to the value of the manure, I would solicit a word of information. In feeding refuse grain on a farm, or screenings in a village, there will be considerable chess, and other foul seeds which the fowls will not consume. If you will name the best method of destroying the vitality of those seeds in the manure, before using it on the garden, you will oblige not only the writer, but others of your subscribers.

There is another subject on which I would request to be informed, by yourself or some of your experienced correspondents. A little more than a year ago I purchased a farm, and was greatly disappointed last spring to find some fields much infested with *pigeon weed*; and being desirous to subdue it, at any necessary sacrifice, I looked with interest to the Genesee Farmer, and other sources, for information, but could learn nothing satisfactory, and was about to address you, when the valuable article on that subject, appeared in the August number of the present volume. But as those fields on which this pest was most prolific, had already been run down by constant improper tillage, without any regard to a judicious rotation of crops, I had previously arranged with the present occupant to have them seeded with grass or clover, and let them rest awhile. I wish to know whether it would be best to carry out my original plan, or will the *pigeon weed* still increase in spite of the clover, and thereby render it more difficult to be got rid of when the ground is broken up again.—Any information on this subject will be thankfully received. R. W. B.—*Lockport, Oct.*, 1850.

We give the facts of our correspondent as to the profits of his fowls, so that they can be seen at a glance:

66 dozen eggs, say at 8 cts.,		$5 28
26 chickens at one shilling,		3 25
		$8 53
Cost of 11 fowls, say at 1s. 6d.,	$2 06	
Paid for feed,	4 14—	$6 20

It will be seen that notwithstanding the bad luck complained of, R. W. B.'s fowls have paid their first cost and $2.33 besides. This, in addition to the manure, which will be found very valuable, and also very convenient, in the garden.

The Polands can be obtained in Rochester now, as pure and as pretty as we ever saw any where, and at reasonable prices. There is some talk of the Poland producing white occasionally, but we have never had such a case among our own. We have kept about fifteen Poland hens this summer, and but two has shown any disposition to sit. These two were very old. While young, we think the Polands are more tender and more liable to disease than some other kinds, though not more so than our common fowls.

To get rid of chess and other seeds in the manure, we always throw it into a barrel of water kept standing near the hen house for the purpose. The chess, &c., will rise to the top, and can be removed. We have been trying some experiments on the effect of salt in destroying vitality of seeds in manure, and may say something hereafter.

The Pigeon Weed will not stand much of a chance to thrive if the ground is well occupied with grass and clover, and a little care used. Three years since we had a small piece sown with red-top and white clover for a lawn. The red-top, instead of being pure seed, proved to be the cleanings from a lot of Timothy, and consequently contained any quantity of foul weeds. We should judge that the greater part was pigeon weed, as the ground was literally covered with it, and scarcely anything else to be seen. As soon as it was high enough we mowed it as close as possible, and continued to do so as often as high enough to be clipped with the scythe. The consequence was that not a head was permitted to seed. The grass and clover now form a very pretty turf, and only an occasional plant of pigeon weed is to be seen.

THE WIRE-WORM.

Messrs. Editors:—Having been benefitted by the agricultural experience of others, communicated through the Genesee Farmer, and feeling it a duty to reciprocate such favors, and as I have had some experience by way of losing several crops of grain and potatoes by the worms; therefore this communication in answer to an article in the November number of the Genesee Farmer, asking for information on the method of destroying wire-worms.

Four years ago last fall, I sowed an old meadow to wheat. The following spring it appeared thin and feeble, gradually disappeared, and I thought it had winter-killed. I then planted the field to corn, and the worms destroyed the entire field; some hills were destroyed before the corn had time to germinate. They also destroyed half an acre of potatoes. I tried lime and unleached ashes without any good effect, and gave up the field as lost for the season, until I was told by Mr. Wilks Durkee, an old farmer, that buckwheat would effectually destroy them.—At the proper time I sowed the field to buckwheat, and had a first rate crop; I have not been troubled with them in that field since. I have tried other fields, with like result. I hardly dare venture a reason in regard to the cause, as some of your correspondents are keen-sighted and sharp shooters; but I have stated the simple facts, as they occurred. Z. Swan.—*Bloomfield, Mich., Nov.*, 1850.

Messrs. Editors:—As there is some inquiry *how to destroy the wire-worm*, I would say that, some years since I lost one-third of my wheat crop by sowing it on a piece of meadow land. Since that time, I have plowed my meadow or pasture land, where it has been seeded any time, in the fall—the last half of November or December is the best time. I have for some years planted my corn on grass land plowed late, and I loose but very few hills by worms; and I think it decidedly the cheapest way to raise corn. In the spring, harrow it lightly with the furrow, plant level with the surface, and it will need no hilling. E. F.—*Wayne Co., N. Y.*, 1850.

ICE HOUSES.

Messrs. Editors:—Will you permit me to ask the favor of you to inform me, at the soonest time you can, how to construct the bottom floor of an Ice House built above ground. They are common in your country, built above-ground, I am told, and I would be very glad to learn how to construct one to answer well, especially the bottom floor, as I have built one, the floor of which seems not to be well done. Your attention to this, I will take as a favor. M. Cooper, *Sperryville, Va., Oct.*, 2850.

Mr. Wyeth, of Cambridge, Mass., whose practical information on this subject is probably fuller and more complete than that of any other person in the country, says: "The bottom of the ice vault should be filled about a foot deep with small blocks of wood; these are leveled and covered with wood shavings, over which a strong plank floor should be laid to receive the ice."

HOW TO APPLY MANURE, &c.

Messrs. Editors:—Having become disgusted with storekeeping, and turned farmer, I would feel greatly obliged if you would answer my few questions. I have always been in the habit of plowing in manure as deep as possible. An old farmer, a neighbor of mine, says I am wrong—that it is better to spread it on the surface—the Genesee Farmer is a humbug if it says anything to the contrary. I told him that the ammonia and other valuable properties escaped into the atmosphere. "Don't believe it," said he, "it is to the interest of all such editors to talk so, for the sake of selling their paper. Plow it in, and that will be the last of it; my neighbor plows his in beam deep, and never derives any advantage from it." Am I right in plowing it in?

Is it more advantageous to plant small potatoes than large ones? My neighbor says that he planted some small potatoes in the same field with large ones, and that the small ones nearly doubled the large ones. I believe he told me they were the same kind of potato. (It might have been through the influence of the moon; I know he is a convert to that humbug.)

I have a field that had been cropped prior to my coming, until they could get nothing from it. During the three years I have been on the place, I have used it for a pasture, as water runs through it. Would it not be better to plow it up and seed it down, in preference to the wild June grass that now occupies it? My father believes that wild grass is the best for pasture, and *the longer it is pastured the better it will become.*

A lady friend of mine wishes to know why some of her tulips have not flowered for three years.

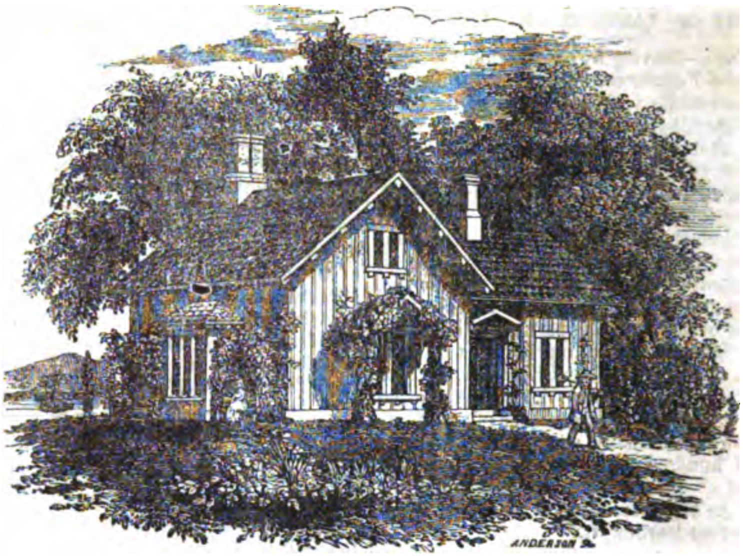
I would suggest a plan for the removal of water-melons, and all other plants that are difficult of transplanting; I have found it to succeed very well. I take a tight sod, about the size of my hand, which I turn upside down, place five melon seeds on each piece, and put them in a hot-bed; then cover with rich earth or rotten manure. The roots will strike into the sod, and may be easily removed. One sod will be found sufficient for one hill. I have sometimes raised them so in boxes in the house. I do not know that it is an original idea; but it may be useful to some of your numerous subscribers. A Young Farmer.—*Wolcot, N. Y.*, 1850.

There is a difference of opinion among farmers, as well as among men who make the science of farming their entire study, as to the best mode of applying manure. If the object in manuring is to benefit a single crop, without any reference to the improvement of the land, the better way, of course, is to put the manure as near the roots as possible, so that all its fertilizing qualities may be taken up by the crop. If the permanent improvement of the land is intended, it is of course needful to manure deep and thoroughly. Manure which contains a large proportion of ammonia, and which exhales a strong smell of alkali, will infallibly lose in value by exposure to the air. The loss is much less, and indeed very small, when the manure contains but a small portion of volatile ame monical salts, as is the case when gypsum has been mixed with it and spread over the surface. As a general rule, the safest way, we think, is to cover the manure with the soil.

Medium sized, uncut potatoes, we think the best for planting—two in the hill; or if in drills, singly, ten inches apart. When seed is scarce, it may be good economy to divide them.

It is a very good way to improve land suited to grass, to "lay it down to grass;" particularly if used as pasture. The manure left on the ground, and the large amount of roots which decay in the soil, increase its fertility. On the relative value of the grasses, we prefer for the present to let our correspondents speak.

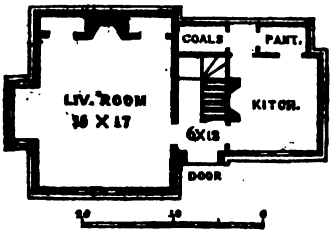
The *tulips* spoken of must have deen very young bulbs when planted, or very old and worn out. We know of no contingences of soil or climate that would prevent the blossoming of the tulip.


ANDERSON Sc.

DESIGN FOR A SMALL BRACKETED COTTAGE.

and taste attained in that simple manner so appropriate to a small cottage.

Accommodation.—The plan of the first floor of this cottage shows an entry, six by twelve feet, containing a flight of stairs to the chamber floor, under which are stairs to the cellar. On the left is the living-room of the family, fifteen by seventeen feet. The deep chimney-breast at the end of the room gives space for two large closets. The bay-window measures six feet in the opening (in the clear) and is three feet deep.



GROUND PLAN.

On the right of the entry is the kitchen, a small room, ten by twelve feet. As the living-room of the family will, in a great measure, be also the kitchen, this small kitchen will in fact be used as a *back*-kitchen for the rough work, washing, etc., so that in summer, and, indeed, at at any time, the living-room can be made to have the comfortable aspect of a cottage parlor, by confining the rough work to the kitchen proper. Back of this kitchen is a small lean-to addition, containing a small pantry, four by six feet, and a place for coals. There is a small passage between this closet or pantry and the coal-hole, and opposite the door opening from the kitchen into this passage, is a door which serves as a back door to enter the kitchen without going in the front entrance.

The chamber floor has two bed rooms each nine by fifteen feet, and one bed room ten by twelve feet.

Variation of the Plan.—This plan may be easily varied, so as to give a more agreeable and symmetrical effect, with little additional cost. To do this, lessen the depth of the chimney-breast at the end of the room, and reject the two closets there. This would make the living-room two and a half feet longer, or fifteen by nineteen feet six inches. Next place the bay-window exactly in the centre of the wall, which would add to the external symmetry. By turning the place for coals into a closet, with a door opening into the living-room, and having a wood-house or coal-house detached, space would be gained and the arrangement would be more pleasing, though, perhaps, not quite so convenient.

Construction.—The construction of this cottage is the same as that in last number. Planed-and-matched or rough boards may be used for the vertical weather-boarding; we should prefer to have them rough (if the cottage is filled-in,) and painted and sanded.

We have shown in this cottage the simplest form of cottage window—that is, the casement window opening in two parts from top to bottom. These sashes are less expensive than rising sashes with weights, but more so than those without weights.—The latticed sash with diamond panes we have introduced as more significant of a cottage. Indeed, there is something in the associations connected with latticed windows so essentially rural and cottage-like, that the mere introduction of them gives an air of poetry to a house in the country.

The chimney-tops are built of brick, in a very simple, but, at the same time, more tasteful manner than the heavy brick stacks usually seen.

The front door is merely covered with a hood on brackets. Its beauty would be enhanced by making this canopy or hood bolder and extending it five feet, making the sides of lattice work and covering the whole with vines.

Estimate.—The whole cost of this cottage, on the Hudson river, would be $512. In the interior, where wood is cheaper, it may be built for $400. In this, we include a cellar under the kitchen and entry, but not under the living-room. The foundation walls of the latter should be laid three and a half feet below the level of the ground.